FINANCIAL PERFORMANCE, HEALTHINESS ASSESSMENTS OF COMPANIES AND BUSINESS SUSTAINABILITY: CASE STUDIES FROM INDONESIA

Editor

Dr. Anurag Agnihotri

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Financial Performance, Healthiness Assessments of Companies and Business Sustainability: Case Studies from Indonesia

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PREFACE

This book provides a comprehensive exploration of financial performance analysis and its implications for key Indonesian companies across various sectors. Each chapter presents a detailed examination of a company's financial health using advanced methodologies such as the DuPont System, Altman Z-Score, and profitability ratios, offering both contemporary and historical perspectives.

The opening chapters delve into the role of Nordic Walking within the Indonesian community, linking well-being with quality of life, and setting the stage for a broader discussion of the ways financial health intersects with corporate sustainability and performance. Following this, the book presents empirical studies on the financial performance of various major Indonesian companies, ranging from the toll road and retail sectors to large corporations like PT Indofood Sukses Makmur and PT Gudang Garam.

Further chapters focus on critical financial analyses, such as bankruptcy risk predictions, profitability measures, and evaluations of strategic investment decisions. The book also compares financial health indicators before and after the impact of the COVID-19 pandemic, offering a unique post-pandemic view on corporate resilience and adaptability in Indonesia.

This collection of studies highlights the importance of robust financial management, offering insights into the strategies that enhance long-term business success. The reader will gain a deeper understanding of how financial performance can be effectively analyzed, interpreted, and used to make informed decisions that support both corporate sustainability and broader economic goals in the Indonesian context.

Each chapter is a valuable contribution to the field, emphasizing the need for sound financial practices in navigating challenges and seizing opportunities in today’s dynamic business environment.

Dr. Anurag Agnihotri
Bursa – December 2024

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CHAPTER 1

The Role of Nordic Walking in Supporting the Quality of Life: Evidence from Indonesia Nordic Walking Community

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ABSTRACT

Nordic Walking originated in the Nordic countries, particularly Finland. In the 1930s, this activity was developed as a form of training for cross-country skiers and outdoor athletes, using ski poles to simulate the motion of skiing while walking, or to maintain physical fitness during outdoor activities. The Indonesian Nordic Walking Community introduced Nordic Walking in Indonesia in 2019, with participants predominantly ranging from productive age groups to seniors, and including individuals from a variety of professions, both active and retired. This study explores the impact of Nordic Walking on the physical, emotional, social, and psychological well-being of its participants. This study was conducted using descriptive qualitative analysis, incorporating interviews and participant observation. The data collected through these interviews were presented descriptively, offering insights into the experiences, challenges, and motivations of local champions, as well as their perspectives on the community's impact on individual and collective well-being in Indonesia. Additionally, the study aligns with SDG 3, which aims to ensure healthy lives and promote well-being for all, and SDG 16, which promotes peaceful and inclusive societies. The inclusive and supportive nature of the Indonesia Nordic Walking Community contributes to SDG 16 by fostering a community that values social cohesion and inclusivity, enhancing participants' sense of security and mutual support.
Keywords: Nordic Walking, Better Life Purpose, Cardiovascular Health, Muscle Strength and Posture, Continuity of Indonesian Nordic Walking Community.

1. INTRODUCTION

1.1 Background

According to the Data Survei Kesehatan Indonesia 2023 the prevalance of obesity and overweight among children aged 5-12 years reach approximately 19.7% and among children aged 13-15 years reach approximately 16%. This results from high energy food consumption with low physical activity. It is demonstrated that obesity causes cardiovascular illness, diabetes, cancer and neurological disorders, chronic respiratory disease and digestive disorders leads to 15 million death in 2019 (BRIN, 2024). Hence, obesity is not only causing reduce on body image but also deterioration in health which sometimes could leads to death if it is not handled properly. Indonesia is currently facing challenges in meeting international targets related to overweight and obesity, as shown in Table 1.

Table 1. The progress of Indonesia in complying to the international targets regarding childhood overweight and obesity (UNICEF, 2019)

Target	Description	Assessment	Source
No increase in adult obesity prevalence between 2010-2025	Likelihood of meeting the WHO 2025 obesity target for adults (≥ 20 years old).	Very poor chance (0%)	(World Obesity Federation, 2020)
No increase in childhood overweight (children <5 years)	Assessment of progress in reducing overweight among children <5 years of age and in meeting the WHA target of no increase of childhood overweight by 2025 in this age group. On- and off-track indicate respectively average annual reduction rates of ≥ -1.5% and < -1.5%	Off-track	(Global Nutrition Report, 2021b, 2021a)
No increase in childhood obesity prevalence by 2025	Likelihood of meeting the WHA 2025 obesity target for children <5 years and the WHO voluntary target for children and adolescents aged 5-19 years	Poor chance (21%)	(World Obesity Federation, 2019)
National obesity risk	A composite risk score based on obesity prevalence and trends, likelihood of meeting the 2025 target, treatment indicator and childhood stunting levels	High (7.5 out of 10)	(World Obesity Federation, 2020)
Childhood obesity risk	An estimated risk score assessing whether countries will likely have a significant problem with childhood overweight and obesity during the 2020s, based on existing prevalence and trends as well as pre- and perinatal risk factors	High (7 out of 11)	(World Obesity Federation, 2019)

In response to this matter, increasing physical activity and consuming a healthier diet should be prioritized. Increasing physical activity, such as exercise, can sometimes be costly; therefore, low-cost exercise options, such as normal walking and Nordic walking, should be promoted to all groups of age. Exercise could help increase the calorie expenditure which leads to reduction of body weight and increasing body muscle. In regard to this, Nordic Walking could be the option because it is relatively low cost and have lots of benefits.

Nordic walking is an excellent therapeutic exercise in patients with HBPr, because improves the blood pressure control, the weight control and the exercise capacity (Launois et al., 2018). A Home Exercise Programme (HEP) augmented with Nordic Pole Walking (NPW) proved to be efectively improving the walking distance, speed, quality of life and mean health scores of patients with intermittent claudication. This exercise gives benefits of low cost and better compliance (Oakley et al., 2017). Nordic walking improved significantly the insulin resistance which also associated with the changes in BMI, Trigliserid and uric acid serum. Because Nordic Walking using poles, hence it requires 67% greater energy than normal walking. It resulted in significant increase usage of oxygen and calorie expenditure hence leads to improved chronic inflammation as a result of excess body weight and helps prevent fatty liver. (Kawamoto, et al., 2015). The observation conducted to the Walking group and to the Nordic Walking group showed that the Nordic Walking group have a significant improvements in physical and cognitive function compared to the other groups (Nemoto, et al., 2021). In the study of Nordic Walking group, Normal Walking group and Control, the Nordic Walking group and Normal Walking group demonstrated significant decreases in body weight and total cholestrol however the Nordic Walking group showed increases in upper extremity muscle strength resulted from the usage of poles (Song, et al., 2013). Nordic Walking improves cardivascular health which includes capacity of exercise and controlled blood pressure. It also has physical benefits including reduce weight, improving overall muscular strength especially in the upper body, increases caloric expenditure, improving balance and stability. In addition, Nordic Walking also reducing anxiety and depression which also improves perception of body image and quality of life (Torri, et al., 2024).

As shown in Table 2 that in 2023 the population is mostly on the newborn to the productive age. Hence the new lifestyle of actively exercising should be practiced especially to the productive age to increase productivity and quality of life. Additionally, Nordic Walking also could be practiced by the elderly and proven that it is safe and could brings lots of benefits too for the elderly group.

Table 2. Population by Age Group and Gender, 2023

Age Group	Population (Male) (thousands)	Population (Female) (thousands)	Population (Male + Female) (thousands)
01-04	11.499,3	11.012,6	22.511,8
05-09	11.237,6	10.762,4	22.000,1
10-14	11.316,5	10.746,7	22.063,2
15-19	11.419,7	10.714,6	22.134,4
20-24	11.489,7	10.871,1	22.360,9
25-29	11.509,1	10.986,4	22.495,6
30-34	11.243,9	10.845,1	22.089,0
35-39	10.834,1	10.570,3	21.404,5
40-44	10.274,3	10.130,8	20.405,2
45-49	9.544,2	9.514,7	19.058,9
50-54	8.415,0	8.450,9	16.865,9
55-59	7.133,3	7.231,3	14.364,6
60-64	5.676,6	5.813,7	11.490,3
65-69	4.183,9	4.344,5	8.528,4
70-74	2.695,1	2.920,6	5.615,8
75+	2.314,2	2.993,5	5.307,7
Total	140.786,8	137.909,4	278.696,2

1.2 Community Background

In Indonesia, Nordic walking was first introduced by Sumartoyo, a lecturer at PPM School of Management who already had a regular walking habit. One day, he met his friend Widyarso, who had just returned from Texas, USA, after completing his doctoral program. Widyarso suggested walking with Nordic poles, but Sumartoyo initially assumed that people who use walking sticks are usually those with physical limitations, and he received strange looks from the people he encountered at that time. After being informed that many people in the United States use Nordic walking poles for exercise, Sumartoyo conducted research through websites and YouTube. He discovered that Nordic poles are widely used in Scandinavian countries and Europe for skiing in the winter, and in the United States for hiking activities during the summer. Eventually, Sumartoyo decided to purchase a Nordic walking pole and give the sport a try. After experiencing the positive benefits of the activity, Sumartoyo was inspired to invite more people to join. Initially, Nordic walking enthusiasts in Indonesia were predominantly PPM lecturers and employees who exercised in the mornings along routes around Jalan Menteng Raya, such as from Tugu Tani to Metropole. However, Sumartoyo's determination grew stronger to introduce the sport to a broader community. Together with his colleague Andi Ilham Said and PPM academics, he founded the Indonesian Nordic Walking Community (KJNI) on April 23, 2019, starting with 30 members. (Luke Andaresta, 2021).

Figure 1.1 Establishment of Indonesian Nordic Walking Community, 23 April[th] 2019

Figure 1.2. Founder: Sumartoyo

of KJNI

Figure 1.4 Flag of KJNI

Figure 1.5 Member of INWA – International Nordic Walking Association

Due to its sustained efforts, KJNI has achieved significant expansion, with membership now distributed across all regions of Indonesia. As the organization grew in scope and influence, it became necessary to formalize its operations, culminating in the establishment of a legal entity under AHU-001-426.AH.01.07 in 2020.

The number of KJNI members has increased year by year. Since its establishment in 2019, there have been around 700 members, divided into two major events: the first Nordic Walking

Grand Event Indonesia I (JNAI I), held at Kebun Raya Bogor by the central KJNI, and the Borobudur and Malioboro Festival I in Yogyakarta, organized by the KJNI Yogyakarta Region. In 2020, during the Covid-19 pandemic, E-Nordik Indonesia was still held, although the number of members temporarily decreased. However, by the end of the Covid-19 pandemic in 2022, the number of KJNI members had increased, surpassing the pre-Covid number, and JNAI III and IV were held in Borobudur, Malioboro, and Prambanan Temple, both in the KJNI Yogyakarta Region. In 2023, the Nordic Walking Grand Event Indonesia V (JNAI V) was held in Solo, organized by BPC KJNI Solo through the first National Conference (Munas I), which resulted in the adjustment of the organization's Household Regulations II (ART II). In 2024, KJNI will hold the sixth Nordic Walking Grand Event Indonesia (JNAI VI) in Malang, organized by BPC KJNI Malang in November 2024, with members from all over Indonesia attending, numbering nearly 2,000 members. This year, Munas II was also held to prepare the first Household Regulations (ART I), due to the growing complexity of the KJNI organizational structure, where some strategic matters were not included in the previous Articles of Association, thus requiring an adjustment to AD II, under AHU-0000283.AH.01.08. in 2024.

This growing number of members is closely tied to KJNI's vision of creating healthy, fit, and harmonious individuals in Indonesia. This vision is a great hope of Sumartoyo and team, who cares deeply about the health of the Indonesian people. To realize KJNI's vision, the mission has been established, which is to improve the health, fitness, and camaraderie of members through Nordic walking, increase members' knowledge, understanding, and love for local and international tourist destinations and history, and expand social networks and friendships that benefit members' quality of life.

The KJNI logo in Figure 1.2 features an image of a person walking with Nordic poles and a house in the background, symbolizing shelter. The meaning of the KJNI logo is to serve as a unique identity symbol instilling the values of health, fitness, and harmony in every member. The KJNI flag in Figure 1.3 is used in various national and international events, as KJNI has become a member of the International Nordic Walking Association (INWA), thus requiring a national identity. The design of the KJNI flag was created by Mrs. Wiwik Sri Suhartati, a member of KJNI.

KJNI also has a march song that is sung at every National Nordic Walking Grand Event to unify the spirit of every member and bring joy to every step and arm swing during Nordic walking. The KJNI march song was composed by Yan Wibisono, an alumnus of PPM School of Management. KJNI's slogan is "KJNI Connecting Indonesian People with Nordic Poles," meaning that this Nordic walking sport can expand friendships through a love of culture, both domestic and international, leading to healthier, fitter, and more harmonious lives for its members.

1.3 Research Questions

The research questions focus on understanding the benefits of Nordic Walking impacts quality of life physically and mentally for not only the elderly group of age but also the youth and adults group of age. Additionally, focusing on promoting Nordic Walking for the young and adults group of age in regard to the unhealthy lifestyle trend currently haunting Indonesian. This research utilizes tools such as participant observation, interviews and documentation to explore how to promote a more healthy lifestyle through Nordic Walking not limited to the elderly but also the young and adults group of age since these group of age is in the productive time. The healthier the productive group the more producive the overall economic that could lead to “Indonesia Emas 2045”.

1.4 Research Objectives

In researching the role of Nordic Walking Community in improving the quality of life in terms of physically and mentally of all group of age, descriptive qualitative was conducted through

participant observation, interviews, and documentation. These method is conducted with the objectives to gauge the role of the Nordic Walking community in improving the quality of life of all group of age and promoting the healthier lifestyle especially to the productive group of age.

2 LITERATURE REVIEW

2.1 Concept of SDGs

The United Nations created the 17 Sustainable Development Goals (SDGs) in 2015 as a component of the 2030 Agenda for Sustainable Development. Addressing interrelated issues including poverty, inequality, environmental degradation, climate change, and peace is the goal of these objectives. There are 169 distinct targets that support each aim, and progress is monitored using a variety of metrics (ITB, 2024). The SDGs place a strong emphasis on a universal approach, which means that by 2030, all nations—regardless of their level of development—should help achieve these objectives. Ending poverty (SDG 1), guaranteeing high-quality education (SDG 4), advancing gender equality (SDG 5), and acting quickly to mitigate climate change (SDG 13) are some of the main goals. The SDGs' guiding idea, "leaving no one behind," makes sure that development initiatives are fair and inclusive. The Sustainable Development Goals (SDGs) offer a comprehensive framework for creating a better future for everyone by combining environmental sustainability, social inclusion, and economic prosperity (OECD, 2023).

2.2 Steps in Practicing Nordic Walking Poles

Nordic Walking is an excellent full-body workout that engages both the upper and lower body. To maximize the benefits of this exercise, always begin with stretching or warming up, and it is essential to use the correct technique. Below are the key steps to effectively use Nordic walking poles :

Step 1 Choose the Right Poles, a person standing next to poles, adjusting the length so the elbows form a 90-degree angle.

Step 2 Adjust the Pole Straps a person adjusting the straps on the handles of the poles to ensure a snug fit around their wrists.

Step 3 Stand Properly, a person standing with good posture, feet shoulder-width apart, with a relaxed yet upright stance.

Step 4 Grip the Poles, a close-up image showing hands holding the pole grips loosely, with thumbs around the handles.

Step 5 Start Walking, a person beginning to walk with poles, keeping a natural walking posture.

Step 6 Coordinate Arm and Leg Movements, The person’s left leg steps forward with the right pole pushing behind, and vice versa, showing the arm-leg coordination.

Step 7 Use the Poles Effectively, Poles planted at a 45-degree angle with the arms engaged, showing the proper pole use.

Step 8 Focus on Technique, A side view showing an upright posture, with the body slightly leaning forward and the poles in proper motion.

Step 9 Maintain a Steady Rhythm, The person walking at a smooth and rhythmic pace with balanced arm and leg movements.

Step 10 Cool Down, The person stretching their arms and legs after walking, relaxing the muscles.

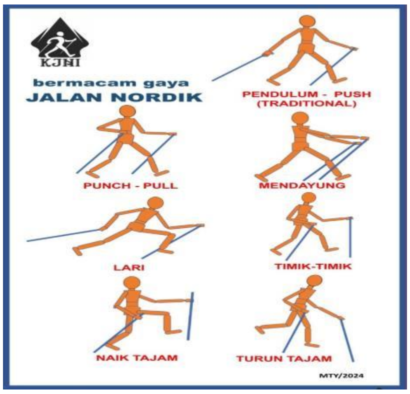

Figure 2.1
Variation Pose of NPW

Figure 2.2
Posture of NPW

Figure 2.3
Benefits of NPW

Figure 2.4
NPW Mechanism

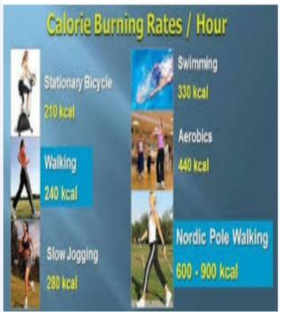

Figure 2.5
Calory Burning Rate per Hour NPW

Figure 2.6
Walking Muscle Process of NPW

Figure 2.7
Comparation of Working Muscle

Based on Figure 2.1, a variation of NPW that is in high demand by beginners as well as those with experience using the ‘Pendulum-Push (Traditional) style. Figure 2.2 with a right position and walking swinging the Nordic stick that is on the left and right of the body. There are many benefits of Nordic exercise as shown in Figure 2.3 including weight loss, strengthening and repairing the spinal system, improving the body's immune system, uniting with nature, getting enough vitamin D, making the body healthy and increasing self-confidence and others. Figure 2.4 shows that NPW has a faster impact on weight loss than ordinary walking, this is supported by figure 2.5, which shows a comparison of the results of calories wasted from NPW per hour which is 600-900 kcal while ordinary walking is only 240 kcal, swimming 330 kcal and so on. This is supported by figures 2.6 and 2.7 which show that the working muscle mass of NPW is 90%, followed by running 50% and cycling 40%.

2.3 Greiner’s Model of Organizational Growth

Figure 2.8 Greiner’s Model of Organizational Growth

Greiner's Model of Organizational Growth provides shown in Figure 2,8 explain a framework for understanding how organizations evolve through distinct stages, each with its own set of challenges and transformations. Initially, in the "Creativity" phase, an organization or community is focused on innovation and developing new ideas, with little formal structure. Leadership tends to be informal, and collaboration is more fluid. However, as the organization grows, it enters the "Direction" stage, where a more defined leadership structure is needed. At this point, roles and responsibilities become clearer, and the organization faces the challenge of balancing creativity with the need for structure and order.

As the organization expands further, it moves into the "Delegation" phase, where greater responsibility is distributed to different teams or units. The community or organization begins to formalize its structure, possibly expanding geographically, which requires legal and operational adjustments. For instance, KJNI might have had to establish a formal legal entity to accommodate its growing membership across Indonesia. In the "Coordination" phase, as complexity increases, the organization needs integrated systems and processes to ensure smooth functioning across various departments or regions. Effective communication and management systems become essential.

Finally, in the "Collaboration" stage, the organization reaches maturity, with an emphasis on collaboration and synergy among its different parts. This stage requires fostering stronger cooperation across the organization to maintain sustainable growth. Greiner’s model also highlights that each stage of growth is often accompanied by a "crisis" or a challenge, such as issues with management, structure, or communication, that must be resolved for the organization to continue advancing. In the context of KJNI, these challenges might include managing growing membership, ensuring effective coordination, and adapting the organizational structure to meet new demands. Overall, Greiner’s model emphasizes that organizational growth is a dynamic process, requiring ongoing adaptation to maintain stability and foster long-term success.

3. METHODOLOGY

This research uses a descriptive qualitative analysis. Data collection using the participant observation method was made in every KJNI activity at Car Free Day (CFD) . In this method, participants can include interviewers, observers, and respondents in the research (Namey et al., 2012). There are advantages and disadvantages to this. According to Kawulich (2005), one advantage of participant observation is that it allows for a “richly detailed description” and improves the quality of interpretation of data. The disadvantage is that the information provided may be less objective as it could potentially rely heavily on the subjective interpretation of key informants used (Kawulich, 2005). Namey et al. (2012) also argued that participant observation enables access to insider information that is hard or impossible to obtain otherwise as well as reduces reporting biases stemming from unfamiliarity with the social scene being studied. It also helps the researchers to know what question to ask and how to ask it as well as recognize the subtleties in the data and observation that would otherwise be lost when using other data collection methods (Namey et al., 2012). However, Namey et al. (2012) also warned about the potential of data collected through participant observation being idiosyncratic or very difficult to generalize, possibly undermining the study's credibility.

The duration of practice for NPW at CFD with route Ratu Plaza to Hotel Indonesia takes 1,5 hour starting at 07.00 to 08.30 am Western Indonesia Time in every Sunday. Interviews were conducted with 12 interviewees to find out the effectiveness and benefit of NPW, the majority of whom are elderly.

Documentation, in every rehearsal and event, documentation is always made either in photo or video format to gauge the participants' growth in their ability to exercise NPW according to the a right position and walking swinging the Nordic stick that is on the left and right of the body.

4. RESULT AND DISCUSSION

KJNI organizes regular Nordic walking events once a month, held during Car Free Day in Jakarta, with a route from Ratu Plaza to Hotel Indonesia, covering approximately 5 km. This event is very popular among Nordic walking enthusiasts, predominantly seniors, though there are also some younger adults and millennials, albeit in smaller numbers. Participants gather at 07:00 WIB in front of Ratu Plaza, starting with a warm-up and briefing provided by the BPD Jabodetabekanjur and BPC Jakarta. Before the Nordic walking event begins, a group photo is taken, and another photo is taken at the finish line in front of Hotel Indonesia. Among the many participants, the author conducted observations and interviews with respondents, whose profiles are as follows:

Table 4.1. Respondent Profile

Age Range (Year)	Gender		Working Status			
	Female	Male	Female		Male	
			Working	Retired	Working	Retired
25 - 55	-	2	-	-	2	-
55 - 65	5	3	2	3	2	1
65 - 75	1	1	-	1	1	0
75 - 85	-	-	-	-	-	-
Total	6	6	2	4	5	1

Table 4.2. Details of Respondent Profile
Interviewer: Liena Prajogi (Female, 55-65 years, working).

No	Interview Participants:	Gender	Age Range	Working Status
1	Mrs. Suyamni	Female	65 - 75 year	Retired
2	Mrs. Diah Hanny	Female	55 - 65 year	Retired

3	Mrs. Etty S. Hadidjojo	Female	55 - 65 year	Retired
4	Mrs. Wiwiek Mardawiyah Daryanto	Female	55 - 65 year	Working
5	Mr. Nova Daryanto	Male	55 - 65 year	Retired
6	Mr. David Chandrawan	Male	25 - 55 year	Working
7	Mr. Yan Wibisono	Male	25 - 55 year	Working
8	Mr. Catur Mulyono	Male	55 - 65 year	Working
9	Mr. Andi Ilham Said	Male	55 - 65 year	Working
10	Mrs. Endah N. Hamdani	Female	55 - 65 year	Working
11	Mr. Sumartoyo	Male	65 - 75 year	Working
12	Mrs. Euis	Female	55 - 65 year	Retired

Interview Results

The interview was conducted on Saturday, 2 November 2024. The results are as follows:

1. **Do you regularly participate in Nordic Walking activities? Is it individually or in a group?**
   Most participants regularly participate in Nordic Walking, with a preference for group activities as it fosters motivation and social connections. A few individuals mentioned walking individually due to convenience or schedule flexibility.

2. **Where and how often do you do Nordic Walking in a month?**
   Participants typically walk 2-4 times a month in parks, neighborhoods, or during Car Free Day (CFD). The frequency varies based on personal schedules, with some participants joining organized events and others walking independently.

3. **What benefits have you experienced or gained from Nordic Walking?**
   The most commonly cited benefits include improved physical health (stamina, flexibility, cardiovascular fitness), mental health (stress relief, focus), and social interaction. Several participants also mentioned reduced joint stiffness and weight management as key outcomes.
4. **Do you regularly join the Nordic Walking events organized by KJNI/KJNI Jakarta? If YES, answer questions 5 and 6; If NO, go directly to question 7**
   A majority of participants regularly attend KJNI-organized events, while a few have yet to join due to time constraints or other commitments. Those who participate find these events highly beneficial.

5. **Do you think organizing Nordic Walking once a month during Car Free Day (CFD) is sufficient? Why or why not?**
   Most participants agreed that once-a-month events are a good starting point but suggested increasing the frequency to twice a month or weekly to enhance engagement and consistency.

6. **What specific benefits have you experienced from joining Nordic Walking events during Car Free Day (CFD)?**
   Participants highlighted the motivating group atmosphere, access to car-free spaces for a safe and refreshing experience, and the chance to network and socialize. These events also inspire consistency in their exercise routines.

7. **What challenges or obstacles do you face in participating in Nordic Walking regularly?**
   The main obstacles include busy schedules (especially for working participants), family responsibilities, and, in some cases, lack of transportation. A few participants mentioned low energy or lack of motivation as barriers.
8. **What are your hopes for Nordic Walking events organized by KJNI/KJNI Jakarta during CFD?**
   Participants expressed hopes for improved event variety, such as workshops on walking techniques, longer walking sessions, and incorporating warm-ups or fitness challenges. They also hope for more frequent events to maintain momentum and attract new participants.
9. **Do you have any suggestions or feedback to improve the activities in the future?**
   Suggestions included better communication (e.g., through social media), hosting events in different locations, providing small rewards or refreshments, and offering additional activities like health check-ups or stretching sessions. Participants also recommended flexibility in timing to accommodate more people.
10. **What are your aspirations for ensuring the sustainability of your involvement in the KJNI/KJNI Jakarta community?**
    Participants aspire to build a stronger community through consistent communication, incentives for regular participants, and partnerships with organizations to broaden engagement. Social bonding through gatherings or exclusive events was also suggested.

4.3 Positive Benefits for Participants

Respondents felt the positive benefits of doing Walking Nordic, among others:

- Through community-based activities, participants not only engage in healthy practices but also learn and appreciate the shared cultural values and traditions within the group.
- Nordic Walking events provide a platform for participants to network, build friendships, and strengthen relationships through *silahturahmi* (social connection), creating a sense of belonging and community.
- Many participants experience improved physical health, including relief from specific conditions like pinched nerves. Nordic Walking has helped some individuals recover mobility, enabling them to return to normal activities, such as moving their arms again after previously being unable to do so.
- Participants feel motivated to lead a better life, experience increased quality of life, and find their lives more meaningful. The activity serves as a source of inspiration to stay positive and productive.
- By improving overall health, encouraging active lifestyles, and fostering meaningful connections, Nordic Walking helps participants lead a healthier and more fulfilling life, making every step count toward a better future.

4.4 Obstacles

The primary challenges participants face include hectic schedules, particularly for those who are working, family obligations, and, in some instances, a lack of transportation. Some individuals also mentioned low energy and a lack of motivation as barriers. Additionally, there is a lack of family support, reluctance to be active, and unfavorable weather conditions such as rain or transitional seasons. The distance from home to the meeting point, especially from Ratu Plaza to the area in front of Hotel Indonesia, is also a significant obstacle for some participants.

4.5 Hopes and Aspirations

Participants hope that Nordic Walking events organized by KJNI, in Jakarta will continue to be held regularly, with at least one event during Car Free Day (CFD) each month. This consistency encourages participation, motivates those who may be less active, and creates an eagerly awaited monthly event. Many also see these events as opportunities for socializing and networking, building a strong sense of community.

To attract younger participants, some suggest adding music and dance elements, such as a Nordic Walking dance session, to make the events more fun and engaging. Additionally, there’s a desire for more variety in the events, such as workshops on walking techniques, longer sessions, and fitness challenges. Small incentives, like rewards or refreshments, could also help motivate regular participation.

Participants aspire for greater communication, including better use of social media to keep the community informed. They also hope to see more cultural exchange, especially in larger cities, where Nordic Walking events can become a platform for learning about different cultures while promoting health. Lastly, they wish for exclusive events and partnerships that will sustain and grow the community, ensuring it remains vibrant and engaging for years to come.

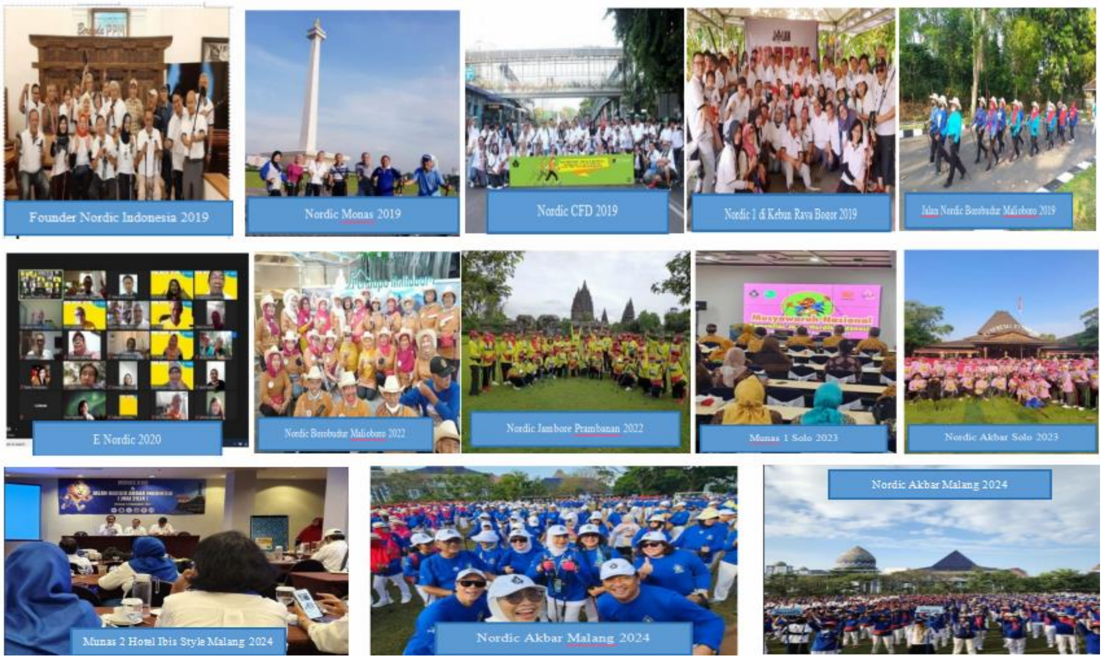

Figure 4.1 Coordination and Collaboration Nordic Akbar Indonesia Event 2019-2024

4.6 SDGs 3

Nordic walking has a strong connection to Sustainable Development Goal (SDG) No. 3, which focuses on health and well-being. Nordic walking offers a range of health benefits, including improving cardiovascular health, burning more calories than regular walking, and reducing stress on joints. By engaging more body muscles, it is effective in improving physical fitness without putting excessive pressure on joints, making it suitable for a wide range of people, including the elderly and those in rehabilitation. It can also improve balance and coordination, which are important for preventing injuries, especially in the older population (UN, 2021).

In addition to the physical benefits, Nordic walking also has a positive impact on mental and social health. The activity is often done in groups or communities, creating opportunities for individuals to interact and socialize. Communities such as the Nordic Walking Community of Indonesia (KJNI) have encouraged community participation in this sport through regular activities, which not only improve fitness but also strengthen social bonds between members. Thus, Nordic walking is an effective tool to support the achievement of SDG 3 by improving the overall quality of life.

4.7 SDGs 16

Nordic walking can contribute towards achieving Sustainable Development Goal (SDG) No. 16, which focuses on peace, justice and strong institutions. It encourages people to participate in healthy physical activities, thereby strengthening social bonds and creating a more peaceful and inclusive environment. By getting people from all walks of life involved in the sport, Nordic walking can help reduce social tensions and promote a sense of community, which is an important aspect of achieving peace and justice (Bisnis Indonesia, 2023).

Nordic walking can also serve as a platform to raise awareness about social and justice issues. Group activities involving Nordic walking can be a means to discuss important topics such as gender equality and protection against violence, in line with SDG 16's goal to reduce all forms of violence. By building an active and engaged community, Nordic walking contributes to the strengthening of effective and accountable institutions, and increases people's participation in responsive and inclusive decision-making.

4.8 Roles of Coordination and Collaboration

According to Greiner's Model of Organizational Growth, KJNI has successfully progressed through the Creativity, Direction, and Delegation stages, up to the Coordination phase. This is evident from the substantial increase in membership, which reached around 2,000 participants at the JNAI VI event held in Polinema, Malang. To date, we have successfully conducted two MUNAS (National Conferences), with a clear focus on direction and delegation, ensuring structured and purposeful leadership at all levels. This progress is supported by centralized control through the BPP (Central Leadership), BPD (Regional Leadership), and BPC (Branch Leadership), which provides oversight while still allowing for creativity and innovation in executing KJNI activities. Members are encouraged to showcase their regional cultures through unique attributes and ideas, further contributing to the community's dynamic growth, as shown in Figure 4.1.

The next step for KJNI is to strengthen the coordination and collaboration phase by engaging various layers of society, including within the KORMI (Komite Olahraga Rekreasi Masyarakat Indonesia), INWA (International Nordic Walking Association), and smaller community clusters such as residential areas, institutions, and companies, both on a small scale and in large events. This will involve targeting the productive age and millennial segments through coordinated events with KORMI. The goal is to ensure consistent and sustainable activity implementation across all levels—central, regional, and branch—while promoting deeper collaboration among these segments. As KJNI continues to grow, it must focus on optimizing coordination within its expanding network, enhancing communication, and harnessing the creativity of younger generations. This will allow the organization to enter the Collaboration stage, where synergy between its components is essential for long-term success. By emphasizing strong collaboration, innovation, and consistency at all levels, KJNI can ensure its continued development and sustainability within the broader national community, as shown in Figure 4.2.

Figure 4.2 Senam of Indonesian Nordic Walking Community for Young Generation
“One Way Ticket Song”, introduced by Sumartoyo, Andi Ilham Said and Nova Daryanto.

Scope of Work and Limitation

The scope of work of this research is limited to a single community, KJNI who come every Sunday once a month to NPW in CFD Ratu Plasa to Hotel Indonesia whose members are mostly elderly.

To further this study, it is hoped that the scope of this research will not be limited to just one community, but can be expanded to include multiple communities and regions, involving various segments of society and age groups, particularly the productive age and younger generations. This way, the results of the research will provide a broader and more comprehensive understanding.

A qualitative descriptive analysis using participant methods has limitations, such as the authors' involvement as participants, which may compromise objectivity. This issue should be addressed in future research on other organizational communities. In such cases, the authors should act solely as independent observers and interviewers. This approach will ensure more objective, reliable, and comprehensive data, leading to more current and relevant findings.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The Indonesian Nordic Walking Community (KJNI) has made significant progress in expanding its reach and establishing strong collaborations at both national and regional levels.

Through effective coordination and collaboration, KJNI has successfully created synergies that support its vision of fostering a healthy, fit, and harmonious Indonesian society. The collaboration among members, local communities, and international organizations such as INWA further strengthens KJNI's mission to enhance health, fitness, and camaraderie across all segments of society, from the younger generation to seniors. By continuing to prioritize inclusive and innovative cooperation, KJNI will further develop and have a positive impact on the quality of life of its members, improving the well-being of people from all walks of life and age groups throughout Indonesia.

This focus on inclusive physical activity directly supports SDG 3 by encouraging healthier lifestyles, reducing non-communicable diseases, and fostering community well-being. By collaborating with local communities and international organizations like INWA, KJNI not only enhances its outreach but also creates a supportive environment where individuals can engage in healthy activities together, thereby improving overall public health. Moreover, KJNI's emphasis on collaboration and community building aligns with the objectives of SDG 16 by promoting peaceful and inclusive societies. The community fosters social cohesion through group activities that encourage interaction among diverse populations, which helps to mitigate social tensions and build trust within communities.

5.2. Recommendation

Recommendations for KJNI's Sustainability:

1. Utilizing Digital Technology: KJNI could develop an application or digital platform to facilitate member participation, incorporating activity tracking, reminders, and education about Nordic walking.
2. Social Media Education: Leverage platforms such as Instagram, TikTok, and YouTube to spread information, tutorials, and the benefits of Nordic walking to the younger generation.
3. Collaboration with the Youth: Engage the younger generation by organizing activities like fun walks, online challenges, or tech-based sports competitions.
4. Integration with Daily Activities: Encourage the public, particularly millennials, to incorporate Nordic walking into their daily routines, either in the morning or as a family activity.
5. Partnership with Educational Institutions and Corporations: Collaborate with schools, universities, and companies to introduce Nordic walking as part of health programs.
6. Promoting Nordic Walking as a Healthy Lifestyle: Position Nordic walking as a practical sport with long-term physical health benefits.
7. Adapting Programs for the Youth: Create engaging educational content such as video tutorials or virtual training sessions that resonate with younger audiences, collaborating with influencers or youth speakers.
8. Building an Inclusive Community: Develop a diverse and inclusive community to ensure KJNI remains relevant and sustainable in the future.

By implementing these strategies, KJNI can thrive in the era of disruption and promote a healthy lifestyle towards Indonesia's Golden Vision in 2045.

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CHAPTER 2

The Effect of Financial Performance, Stock Market and Foreign Exchange to Stock Return of an Indonesian Toll Road Company

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ABSTRACT

Stock Return is change in the value of a stock over time that can be influenced by both internal (fundamental) and external factors (business environment). Those factors are the mostly considered by Investors and Asset Managers to gain optimal Stock Return in their investment decision making. This study examined how fundamental factor such as company Financial Performance and how business environment factors such as Stock Market and Foreign Exchange can affect to Stock Return in an Indonesian Toll Road Company listed in Indonesia Stock Exchange (the Company). The analysis used Multiple Regression Analysis methodology applied for the historical Company's Financial Performance data which comprised of quarterly company's Stock Return, Return on Equity (ROE), Current Ratio (CUR), Total Asset Turnover (TAT) and Debt to Equity Ratio (DER), Stock Market Return and Exchange Rate (USD against IDR) captured purposively for the period 2014 to 2023. The results show evidence that all Financial Performance indicators i.e., ROE, CUR, TAT and DER as well as external factors i.e., Market Return and Exchange Rate simultaneously influenced Stock Return. However, except for the Exchange Rates variable, they did not individually or partially influence the Stock Return.
Keywords: Stock Return, Financial Performance, Stock Market, Foreign Exchange.

1. INTRODUCTION

Investing in infrastructure is widely recognized as a major driver for a nation's economic growth, serving as a foundation for job creation, poverty alleviation, and overall economic enhancement. Enhanced infrastructure contributes to improved social and economic dynamics, which in turn elevates the standard of living. In the context of Indonesia, a nation characterized by its vast population and extensive archipelago, the development of effective infrastructure is crucial for fostering sustainable and equitable progress. President Jokowi has concentrated his development approach on the construction of infrastructure and the attraction of investments in this sector to mitigate inequality, diminish poverty, and stimulate economic development (Warburton 2016).

Toll road infrastructure development still requires acceleration and still has huge room for growth. The problems of toll road conditions in Indonesia by using a physical gap analysis between toll road length and estimated econometric panel data foretell a large difference in 2040, as long as 10,357.58 km. It proves that the construction of toll roads in Indonesia still needs to be accelerated by up to 8 times, based on population and GDP by comparing it with 21 countries (Sihombing, 2014).

However, swift expansion in infrastructure and the associated demand might be expected to boost the share prices and returns of companies within the toll road, port, airport, and transportation sub-sectors on the Indonesia Stock Exchange (IDX). Toll road sub-sectors companies, ports, airports, and transportation have volatile Stock Return every year. |The Stock Return decreased dramatically from 2014 to 2015 due to the return of shares was negative however in the RPJMN in 2015-2019 infrastructure development increased rapidly compared to RPJMN for the year 2010 to 2014 (Ricardo – Mustafa, 2021).

The stock market has become an important market and plays a central role in economic prosperity that drives capital formation and sustains economic growth. The stock market is vital for economic growth because it reflects the flow of sources of funds to productive investment opportunities (Wijaya & Kristian, 2017; Al-Tamimi, 2011). Stock prices aggregately change on the stock market over time and even tend to change more quickly and repeatedly in one day, especially for some blue-chip stocks that are very liquid. This fact means that stock prices are affected by supply-demand and market microstructure (Kasmiati & Santosa, 2019; Santosa, 2011). No system could estimate stock price movements easily and precisely. However, the factors behind the movement of asset prices in the market include the company's Financial Performance, external factors, and market behavior-risk (Santosa & Puspitasari, 2019).

Many empirical studies have been conducted regarding the determinants of Stock Return. Stock Return is obtained from stock investment in the capital market, which is the primary expectation of investors. Returns are considered a form of compensation or incentive for investors, reflecting the additional risk they accept by participating in the market (Santosa and Puspitasari, 2019). Investment in financial assets represent the expectation of return for investors since they have provided large funds in current time to obtain a flow of funds in the future, to compensate many factors such as time, risk and incurring opportunity-costs (Bodie et al. 2014).

Dividend yields and capital gains lead to increasing returns that grow throughout the investment period. Both internal and external factors of the issuers' environment affect their Stock Return. Internal factors are liquidity, efficiency, profitability, and solvency, which can be proxy through current ratio variables, total asset turnover, return on assets, earnings per share, and debt to equity ratio (Brigham & Houston, 2016).

Macroeconomics and global uncertainty create an unfamiliar environment as external factors for investors and could directly affect investors behavior to corporate performance announcements (Epstein and Schneider, 2008). One of the most crucial macroeconomic

indicators that influence is the Exchange Rate (IDR-USD). The appreciation or depreciation currency caused by supply-demand mechanisms in the market. Exchange Rate fluctuations directly affect the capital market due to global trade, FDI, investment, and debt/bonds transaction using USD. Therefore, the Exchange Rate as a macro risk proxy has a significant effect on asset price volatility in the market (Santosa & Santoso, 2019; Singh et al., 2014). Sutriani (2014) concluded that the Exchange Rate can mediate the ROA and the DER of Stock Return. These findings are corroborated by the perspectives presented in the works of Singh et al. (2014), Khan et al. (2012), and Nikkinen (2008), which explain the Exchange Rate of important macroeconomic variables that have a significant effect on Stock Return.
Since officially stated by Government of the Republic of Indonesia, COVID-19 pandemic started in March 2020 and then ended in June 2019, Indonesia economy was hit adversely during that pandemic period. The pandemic has decreased the Toll Roads utilization due to enforcement by the government regulation, including work from home and large-scale social restrictions to reduce the corona virus outbreak. However, all listed Toll Road companies (i.e. CMNP, META and JSMR) concluded lied on non-bankruptcy zone. According to SOE rating on average for the period before the pandemic, CMNP, META and JSMR consecutively achieved BBB, BBB, and BB rating. While on average, for the period during the pandemic, those companies achieved BB, BB, and B respectively (Prasetyo & Faturohman, 2023).

2. LITERATURE REVIEW

According to V. Wiratna Sujarweni (2014;181) The Multiple Linear Regression Model is powerful in making estimation, unbiased, and consistent, when the model fulfills normality assumption and free from classical assumptions such as multicollinearity, heteroscedasticity, and autocorrelation (data time series).
In developing a research model, this study addresses some theoretical frameworks and relevant research as follows:

a. Capital Asset Pricing Model (CAPM)
The Capital Asset Pricing Model (CAPM) explains the relationship between return and beta. CAPM theory was first introduced in the mid-1960s by Sharpe, Linter, and Mossin. The main functions of the Capital Assets Pricing Model (CAPM) according to Zubir (2011) are as a benchmark in evaluating the rate of return of an investment, and to assist in predicting the expected return of an asset that is or has not been traded in the market.

b. Liquidity
Liquidity proxy (CUR) shows a negative and significant effect both before and after being mediated. Increased liquidity causes a decrease in Stock Return because management is unable to utilize liquidity to support business operations efficiently and effectively. Then the efficiency proxy (TAT) shows a positive effect of efficiency on Stock Return both before and after being moderated (Santosa P.W, 2019). However, this study noted that the data populated was used annual time series (2013-2018) instead of a quarterly time series as recommended by the author.
According to Hani (2015), the definition of liquidity is the ability of a company to meet all financial obligations that can be disbursed immediately or that are due. To measure the company's liquidity, this study used current ratio (CUR). The reason is liquidity using current ratio (CUR), because the debt life is 1 year and includes inventory (financial statements that are often used in annual reports or annual reports). Mathematically current ratio (CUR) can be formulated as follows:

Current Ratio (CUR) = Current Assets / Current Liabilities

c. Profitability

According to Irawati (2006), profitability ratio is a ratio used to measure the efficiency of the use of company assets, in addition it indicates the ability of a company to make a profit during a certain period. The profitability ratio used in this measurement is Return on Equity (ROE). The reason is profitability using Return on Equity (ROE) ratio instead of other ratios such as ROA, NPM, TATO, because Return on Equity (ROE) is more indicative of every profit generated by the company to the profit obtained by investors, in other words measuring the return obtained from the investment of the owner of the company in the business.
Mathematically Return on Equtiy (ROE) can be formulated as follows:

$$\text{Return on Equity (ROE)} = \text{Net Income} / \text{Total Equity}$$

d. Capital Structure
According to Riyanto (2008), the capital structure is a balance or comparison between long term foreign capital and own capital. The capital structure is a mirror of the company's policy in determining the "type" of securities specified.
In this study, capital structure was measured by Debt-to-Equity Ratio (DER). The reason using leverage ratio DER instead of other ratios such as debt ratio, long term debt to capitalization ratio, long term debt to equity ratio, time interest earned, cash return on sales, cash flow interest coverage and cash flow to net income because the purpose of DER is to measure the ability of the company in fulfilling all its obligations indicated by some parts of its own capital used to pay debt.
Mathematically debt to equity ratio (DER) is formulated as follows:

$$Debt\ to\ Equity\ (DER) = (\text{Total Debt} / \text{Total Equity}) \times 100\%$$

e. Stock Return
According to Samsul (2006), return is income expressed in percentage of initial investment capital. Investment income from stock is the profit gained from buying and selling shares, when the result is profit then it called capital gain otherwise it called capital loss.
To predict Stock Return many factors can be used as parameters. To find out if the resulting financial information can already be useful to predict the price or return of shares in the capital market, including the financial condition of the company in the future, is by doing an analysis of financial ratios.

$$\text{Stock Return} = [P_t - (P_{t-1})] / (P_{t-1})$$

Where,

P_t = Current stock price

P_{t-1} = Last period stock price

3. RESEARCH METHOD

This study deals with Stock Return of a Company run Toll Road infrastructure and service in Indonesia and how it affected by its Financial Performance, Stock Market and Foreign Exchange factors. The study used Multiple Regression Analysis which examined the purposive company's financial data and market financial data during the period of 2014 up to 2023 with the following model:

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 MR_t + \beta_6 EXR_t + \varepsilon_t$$

Where:

t = period of 10 years or 40 quarters

Y_t = Stock Return of the Toll Road Company at period t

X_{1t} = Return on Equity (ROE) at period t, which measure profitability

X_{2t} = Current Ratio (CUR) at period t, which measure liquidity

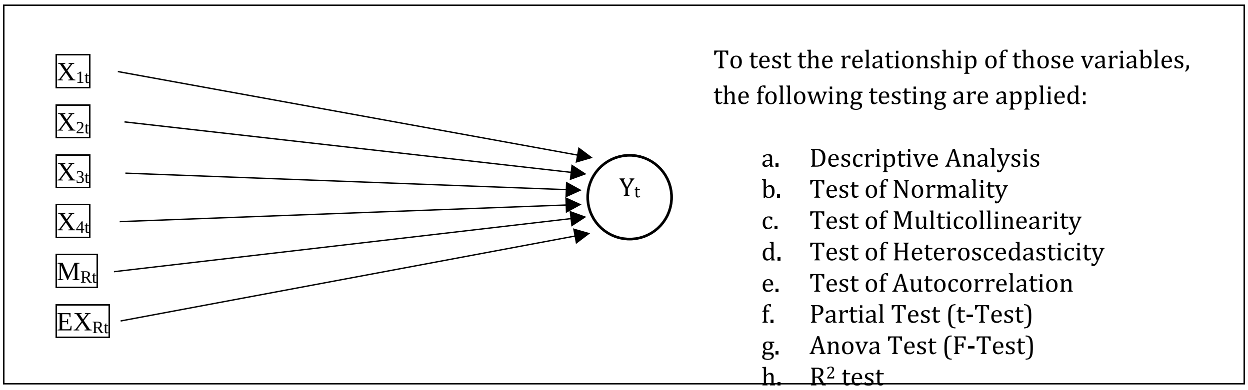
X_{3t} = Total Asset Turnover (TAT) at period t, which measure efficiency on activity

X_{4t} = Debt to Equity Ratio (DER) at period t, which measure leverage

MR_t = Market Return (IHSG) at period t, is stock market performance index
EXR_t = Exchange Rate (USD 1 against IDR) at period t
ε_t = Error term along period t

This quantitative study measures how those independent factors i.e. Financial Performance (internal factors) and Market Return as well as Exchange Rate (external factors) can affect the dependent factors i.e. Stock Return of the Toll Road Company as depicted in diagram below:

Graphic 1 – The research methodology diagram



a. Financial Performance effect on Stock Return

Liquidity affects Stock Return, where the higher the liquidity of the firms will lead to a decrease in operating risk and lower the Stock Return. Stock Return and risk will also decrease because of a trade-off between risk and Stock Return (Brigham & Houston, 2016; Van Horne & Wachowics, 2013; Santosa & Puspitasari, 2019). However, another study by Sugiarti et al. (2014) finds that liquidity affects Stock returns negatively.

Theoretically, the high Total Asset Turnover (TAT) shows the quality of management in managing company assets to create revenue streams. Thus, the higher the TAT, the higher the efficiency and more revenue of the firm whom investors considered (Brealey et al. 2012; Brigham & Houston, 2016). Another empirical study by Lulukiyyah (2011), Zulkarnaen et al. (2016) and Laksono (2017) found that the TAT proxy had a positive effect on Stock Return. Efficiency consideration is essential for investors because it involves revenue creation and proper utilization of assets that have the potential to increase company profits.

b. Market return effect on Stock Return

The Capital Asset Pricing Model (CAPM) is a financial model that delineates the relationship between expected return for assets and their systematic risk, particularly stocks. It describes a linear relationship between the required return on an investment and risk. Market risk factors based on the Capital Asset Pricing Model (CAPM) have a significant effect on the losers' returns, while for winners this risk has no effect. Investors need to pay attention to stock market risk factors because they are proven to affect the rate of return (Sembiring, 2022).

Another study regarding of relationship among Financial Performance indicators i.e. Return on Assets, Market to Book Value Ratio, Return on Equity, Dividends Earnings Ratio, Price to Earnings Ratio, and Net Profit Margin are insignificant associated with Market Return (Musallam, 2018).

c. Exchange Rate effects on Stock Return

A stronger USD Exchange Rate against local currency causes investors to withdraw their funds in shares and shift to invest in USD money market instead of stocks. The depreciation of IDR definitely causes the stock price to fall. Murtianingsih (2014), Aroni as well as Thobarry (2009) concluded that the Exchange Rate negatively effect on Stock Return. Study conducted by Nurunnisak et al. (2018) and Hidayah (2016), stated that the Exchange Rate mediated liquidity negatively affected Stock Return. This study also concluded that the Exchange Rate against company value mediates efficiency and activity.

RESULT AND DISCUSSION

Based on population of 40 time series of Stock Return and Financial Performance gathered from an Indonesian Toll Road Company listed in Indonesian Stock Exchange, and the same number population of Market Returns (Indonesia Stock Exchange Index) and Exchange Rate (USD against IDR from Bank Indonesia) during the period 2014 – 2023, with level of confidence 95% or α = 5%, the followings are empirical results of the study:

a. Descriptive Analysis

In this study, the independent variables used in the model are Return on Equity (ROE), Current Ratio (CUR), Total Asset Turnover (TAT), Debt to Equity Ratio (DER), Market Return (IHSG), USD against IDR Exchange Rate (EXR) while the dependent variable is Stock Return.

Following are the results of the descriptive analysis of research variable data for the model:

Table 1 – The Descriptive Statistics

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error
Stock Return (Yt)	40	1.2415	-.5092	.7323	.013875	.0313158	.1980587	.039	.923	.374
ROE (X1t)	40	80.03	-2.14	77.89	13.9492	1.93627	12.24608	149.966	3.753	.374
CUR (X2t)	40	.92	.28	1.20	.6505	.03617	.22876	.052	.355	.374
TAT (X3t)	40	.12	.03	.15	.0742	.00543	.03434	.001	.531	.374
DER (X4t)	40	2.08	1.35	3.43	2.1740	.10192	.64462	.416	.509	.374
Market Return (MRt)	40	.5072	-.2795	.2277	.015027	.0121899	.0770959	.006	-1.167	.374
Exchange Rate (EXRt)	40	.2892	-.1148	.1744	.008485	.0077822	.0492192	.002	.541	.374
Valid N (listwise)	40									

Table 1 above shows the descriptive statistics of the model which comprised of number of populations of each variable, minimum and maximum value including range of them. The lowest range amongst variables is TAT indicating that the TAT figures relatively flat along the period.

The table also describes the mean value for each variable indicating the "center" value of a dataset is located. TAT also has the narrowest mean and standard error amongst others indicating that the TAT figures are relatively near to constant or similar.

The standard deviation indicates spread out the values around the mean in a dataset. The higher the standard deviation value, the wider spread out the values are in a sample. ROE has the highest standard deviation compared to others.

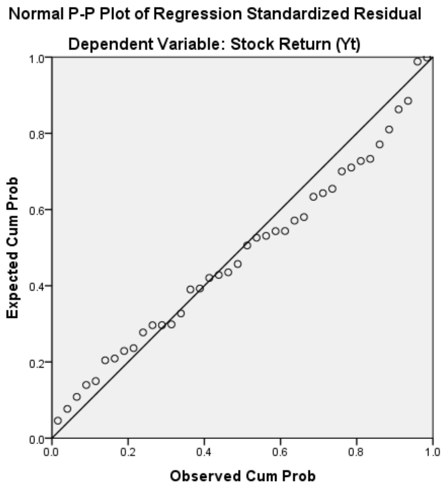
The standard error is the standard deviation of the mean in repeated samples from a population. The standard error indicating accuracy of the mean at any given sample from that population, which is likely to be compared to the true population mean. When the sample size (n) increases, the standard error also decreases. This should make sense as larger sample sizes reduce variability and increase the chance that the sample mean is closer to the actual population mean.

Variance is a measure of variability, which is calculated by obtaining the average of squared deviations from the mean. Variance represents the degree of spread in the data set. The wider spread of the data, the larger the variance that relates to the mean. In this case, as related with the standard deviation, ROE is the largest figure in terms of variance.

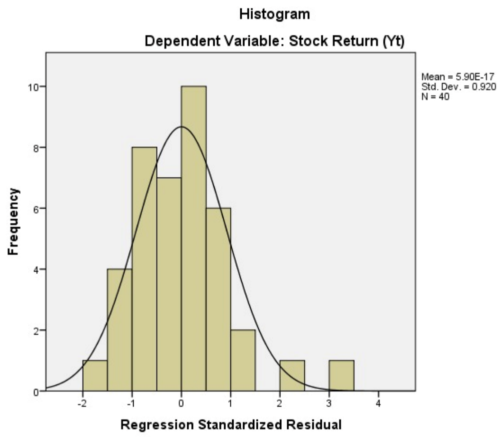
b. Test of Normality

Refer to Imam Ghozali (2011) the regression model has a normal distribution if the plotting data follows a diagonal line.

Graphic 2 – Normal distribution of data plot



Graphic 3 – Histogram of the Normal Distribution



Conclusion: The distribution in the multiple regression model is normal.

c. Test of Multicollinearity

Refer to Imam Ghozali (2011), if the Tolerance value is >0.100 and VIF <10.00 then there are no symptoms of multicollinearity.

Table 2 – Table of Coefficients of the Model

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.021	.159		.129	.898		
	ROE (X1t)	.001	.002	.068	.581	.565	.945	1.058
	CUR (X2t)	.073	.106	.085	.690	.495	.867	1.154
	TAT (X3t)	-.360	.845	-.062	-.426	.673	.611	1.638
	DER (X4t)	-.016	.045	-.051	-.345	.732	.606	1.651
	Market Return (MRt)	.629	.495	.245	1.271	.213	.353	2.832
	Exchange Rate (EXRt)	-2.205	.768	-.548	-2.873	.007	.360	2.780

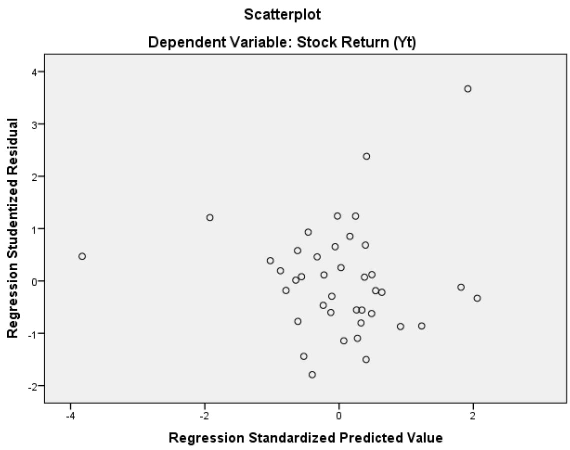
a. Dependent Variable: Stock Return (Yt)

From the above table tolerance values of all variables are >0.100 and VIF <10.00. Therefore, the study concludes that there are no symptoms of multicollinearity.

d. Test of Heteroscedasticity

Refer to Imam Ghozali (2011), if there is no clear pattern in the scatterplot image, and the points are spread above and below the number 0 on the Y axis, then heteroscedasticity does not occur.

Graphic 4 – The scatterplot of the Model



Conclusion: Since the scatterplot spread randomly, heteroscedasticity does not occur.

e. Test of Autocorrelation

The Durbin Watson Test is a measure of autocorrelation (also called serial correlation) in residuals from regression analysis. Autocorrelation is the similarity of a time series over successive time intervals. It can lead to underestimates of the standard error and can cause you to think predictors are significant when they are not.

Refer to Imam Ghozali (2011), when the Durbin Watson (DW) value lies between dU to 4-dU therefore no symptom of autocorrelation.

Table 3 – Table of R Square and Durbin Watson Autocorrelation Model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.754[a]	.568	.489	.1415193	2.319

a. Predictors: (Constant), Exchange Rate (EXR_t), TAT (X_{3t}), ROE (X_{1t}), CUR (X_{2t}), DER (X4t), Market Return (MR_t)

b. Dependent Variable: Stock Return (Yt)

The Durbin Watson test uses the following provisions or basis for decision making:

i. First, determine the test hypothesis, null hypothesis (H0): there is no autocorrelation and the alternative hypothesis (H1): there is autocorrelation.

ii. If the Durbin Watson (DW) value is less than dL or greater than (4 – dL) then the null hypothesis is rejected, which means there is autocorrelation.

iii. If the value of DW lies between dU and (4 – dU), then the null hypothesis is accepted, which means there is no autocorrelation.

iv. If the value of DW lies between dL and dU or between (4 – dU) and (4 – dL), then it does not produce a definite conclusion.

With α = 5% and the number of variables independent variables (k) = 6, and number of population (n) = 40, therefore result of DW value = 2.319.

Table 4 – Provisions for Durbin-Watson Statistic

5% Significance Points of dL and dU

n	k	dL	dU	4 – dL	DW	4 – dU
40	6	1.175	1.854	2.825	2.319	2.146

i. Since DW lies between (4 – dU) and (4 – dL), then it does not produce a definite conclusion. So, the Durbin Watson autocorrelation test should be continued with Runs Test to obtain the conclusion with criteria that if the Asymptotic Significance value > 0.05 then there is no autocorrelation.

ii. With the same data used, the Runs Test generates the following output:

Table 5 – The Runs Test Result

Runs Test

	Unstandardized Residual
Test Value[a]	-.00661
Cases < Test Value	20
Cases >= Test Value	20
Total Cases	40
Number of Runs	23
Z	.481
Asymp. Sig. (2-tailed)	.631

a. Median

Since Asymptotic Significance value = 0.631 or higher than 0.05 therefore it can be concluded that there is no autocorrelation.

f. Partial Test (t-Test)

i. Refer to Imam Ghozali (2011:101), based on significance value: If the Significance value (Sig.) <0.05, then the independent variable X partially influences the dependent variable (Y).

ii. Since all independent variables, except the Exchange Rates, has the Significance value >0.05, all dependent variables partially have no effect on the company's share price, except for the Exchange Rate variable.

In accordance with the model formula below:

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 MR_t + \beta_6 EXR_t + \varepsilon_t$$

The model formula that using beta coefficients from table of coefficients above, the formula can be defined as follow:

$$Y_t = 0.021 + 0.01X_{1t} + 0.073X_{2t} - 0.360X_{3t} - 0.16X_{4t} + 0.629MR_t - 2.205\ EXR_t + 0.159$$

According to V. Wiratna Sujarweni (2014) if the calculated t value > t table then the independent variable X partially influences the dependent variable (Y).

Refer to distribution of t table with $\alpha = 0.05$; n = 40; k=6, therefore the t table value can be obtained as follow:

$(0.5\ \alpha\ ; n\text{-}k\text{-}1) = (0.025\ ; 40-6-1 = 33) = (0.025;33)$ resulting T table value 2.021.

From the coefficient *Table 2* above, none of the t values exceed 2.021, except (the absolute value) of the Exchange Rate variable, which is 2.873, so the conclusion is the same as point a that all dependent variables partially have no effect on the company's share price, except for the variable Exchange Rate which has a negative influence. It means that the higher the Exchange Rate of USD against IDR the lower Stock Return.

In addition, the *Table 2* shows that the variable other than Exchange Rate has the following relationship with Stock Return:

i. Return on Equity (ROE) has a positive effect to Stock Return, that means the higher ROE the higher Stock Return,

ii. Current Ratio (CUR) has a positive effect to Stock Return, that means the higher ROE the higher Stock Return,
iii. Total Asset Turnover (TAT) has a negative effect to Stock Return, that means the higher TAT the lower Stock Return,
iv. Debt to Equity Ratio (DER) has a negative effect to Stock Return, that means the higher DER the lower Stock Return,
v. Market Return (MR) has a positive effect to Stock Return, that means the higher MR the higher Stock Return.

g. Anova Test (F-Test)

According to Imam Ghozali (2011), if the Sig. < 0.05 then the independent variable (X) simultaneously or collectively influences the dependent variable (Y).

Table 6 – Anova Table

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.869	6	.145	7.231	.000[b]
	Residual	.661	33	.020		
	Total	1.530	39			

a. Dependent Variable: Stock Return (Yt)

b. Predictors: (Constant), Exchange Rate (EXRt), TAT (X3t), ROE (X1t), CUR (X2t), DER (X4t), Market Return (MRt)

From the Anova table above, it is found that the significance value (Sig.) is 0.00 or < 0.05, so it can be concluded that the independent variable (X) simultaneously or collectively influences the dependent variable (Y).

Refer to V. Wiratna Sujarweni (2014: 154), if the calculated F value > F table then the independent variable (X) simultaneously or collectively influences the dependent variable (Y).

Review results based on query to T table:

T count = 7,321

T table = (k;n-k) = (6;40-6) = (6;34) resulting value 2.38

Because calculated F value = 7.321 > F table = 2.38, therefore it can be concluded that the independent variable (X) simultaneously or collectively influences the dependent variable (Y).

h. R-squared (R^2) test

R-squared (R^2) is a goodness-of-fit measure for linear regression models. This statistic shows how much of the variation in the dependent variable is accounted for by the independent variables combined. R-squared measures the strength of the relationship between the independent variables and the dependent variable on a convenient 0 – 100% scale.

Referring to Table 2 the model summary concludes that the R-squared value is 0.568, which means that financial performance and market indicators as independent variables (X) simultaneously have 56.80% effect to Stock Return as the dependent variable (Y).

4. CONCLUSION AND RECOMMENDATIONS

This study concludes the following facts:

a. Financial Performance effect on Stock Return

The Financial Performance indicators examined in this study (i.e. Return on Equity for profitability, Current Ratio for liquidity and Total Asset Turnover for efficiency on activity and Debt to Equity Ratio for leverage) are not partially or individually affect the Stock

Return. However, all those Financial Performance indicators as independent variables simultaneously or collectively affect the Stock Return. This implies that to make investments decisions, investors should consider aggregating all Financial Performance indicators according to the model, instead of using either argument or sentiment based on partial Financial Performance indicator only.

b. Market return effect on Stock Return

The model indicates that there’s a linear relationship between fluctuations of Market Return with the Stock Return, although it is not partially influencing by itself. It implies that there is a factor of systematic risk in the market that also influences the Company’s Stock Return. This study agreed with the previous study (Sembiring, 2022), that investors need to pay attention to stock market risk factors, because they are proven to affect the rate of return. Overall, market return together with financial performance indicators simultaneously affect the Company’s Stock Return.

c. Exchange Rate effects on Stock Return

Only the Exchange Rate indicator that individually has direct negative effect to the Stock Return. It means that the higher the Exchange Rate of USD against IDR the lower Stock Return. This generally implies that Exchange Rate fluctuation will be a factor that investors should consider in achieving optimal investment decisions. Since the Toll Road Company generally employed highly capital-intensive projects with revenues solely in IDR currency, any corporate actions that may exposed with foreign exchange, especially in this case USD against IDR, should be a factor to be considered for investors’ decision. However, referring to audited financial reports on the periods being observed, the Company had no foreign currency exposure in its financial statements, since reporting and operating financial currency used in only in IDR. This interesting systematic phenomenon could be highlighted for future research regarding of this evidence that company’s stock price, which has no foreign currency exposure, may eventually can be affected by market sentiment on foreign currency rate fluctuation, in this case USD against IDR.

d. Limitations and suggestions for future research

Multiple regression analysis is a powerful statistical method used to examine the relationship between one dependent variable and several independent variables.
However, it does have some limitations:

i. Linearity: The dependent and independent variables must show a linear relationship. As many cases of scientific approach, the relationship of dependent and independent variables can be non-linear.
ii. Complexity: Multiple regression models can be complex and lead to false conclusions if not analyzed properly. A model cannot be generalized to be applied to other companies, industries and countries that have different types of systemic and un-systemic conditions.
iii. Data Requirements: Any disadvantage of using a multiple regression model usually comes down to the data being used. For example, using incomplete data, anomalies and falsely concluding that a correlation is a causation. So, it is suggested that researchers should check validity of data before running the regression analysis.

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CHAPTER 3

Measurement and Analysis of Financial Ratio and Bankruptcy Risk Prediction of PT Indofood Sukses Makmur TBK for 2018-2023 Period

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ABSTRACT

Food is still the most important need to be fulfilled as the food and beverage industry in Indonesia has grown positively over the past years. PT Indofood Suskes Makmur TBK is one of Indonesia's largest Food and Beverage companies with net sales in 2023 is approximately 117 trillion rupiah, higher than last year. This study aims to measure and analyze the company's financial performance by using the financial ratios analysis of PT Indofood Sukses Makmur. This study will use secondary data from the financial report of PT Indofood Sukses Makmur 2018-2023. The method used for this study is descriptive financial ratio analysis which consists of liquidity ratios, solvability ratios, profitability ratios, and activity ratios. This study provides other financial ratios such as Price Earning Ratios(PER), Price To Book Value (PBV), and Earning Share(EPS). Altman Z-score will also be used for this study to screen the bankruptcy risk prediction of PT Indofood Sukses Makmur TBK. The result of this study is the financial ratio is increasing in profitability and liquidity, has a decrease performance in activity and solvency, the stock performance is currently suitable to be invested, and the Altman Z Score (3.027) result shows the company is in the Healthy Zone.
Keywords: Financial Performance, PT Indofood Sukses Makmur TBK, Altman Z-Score, Financial Ratios, Bankcrupty Analysis.

INTRODUCTION

Until this day, food is still one of the most important things that needs to be fulfilled especially with the food and beverage industry in Indonesia continuing to grow because the population is continuing to increase the demand for food increases, and the personal income available to individuals has continued to increase (Peak Recruitment, 2024). The food and beverage industry in Indonesia has made significant economic growth and is expected to experience an increase of around 5% compared to the previous year based on CRIF forecast for 2023 and the food and according to the data from Statistic Indonesia beverage (F&B) industry increased by 4.90% on an annual basis in 2022 to IDR 813.062 billion (CRIF,2023).

One of the biggest food and beverages companies is PT Indofood Sukses Makmur Tbk at the end of the fiscal year 2023, the net sales amounted to 117 trillion Indonesia Rupiah which is a slight increase from the previous year (Wuff, 2024). Furthermore, PT Indofood Sukses Makmur TBK has an increase in consolidated net sales of 4 percent to IDR 86.94 trillion compared to IDR 83.89 trillion in the same period last year, and an Operating profit of 16.09 trillion from IDR 14.22 trillion which is higher than the previous year which is 2022 (Artanti, 2024).

Financial performance is a fundamental part of measuring how well PT Indonesia Sukses Makmur can utilize its resources such as assets to generate profit and revenue. To analyze the financial performance, the financial ratio is the tool that helps to gain insightful information, especially with these ratios can be helpful to classify whether PT Indonesia Sukses Makmur is in financial distress or maintains a safe balance sheet based on its performance (Bloomental, 2024).

When reviewing the financial statement and performance yearly, PT Indonesia Sukses Makmur can gain the knowledge of recognizing the bankruptcy factors. Therefore, this study aims to measure and analyze the company's financial performance and bankruptcy risk prediction of PT Indofood Sukses Makmur TBK Indonesia by using financial ratio analysis and Altman Z score.

1. CHAPTER-LITERATURE REVIEW

Financial Performance

Financial performance is the ability of the company possess generate profits and increase shareholder value over time and can be used as a tool for measuring how well a company is managing its resources and achieving its financial goals (Lenglet, 2024). The result of financial performance is a complete evaluation of a company's overall that can be divided into different factors such as assets, liabilities, equity, expenses, revenue, and overall profitability (CFI Teams, 2024).

Financial Ratio Analysis

Financial Ratio Analysis is the technique of comparing the relationship or ratios between two or more items of the available financial data from a company's financial statements (Gocardless,2021). If the financial ratio result are high, it gave an indication the company is more efficient on managing asset and the obligations (Anggoro et al, 2020).

Bankruptcy

Bankruptcy is defined as the legal process being initiated when a person or business cannot repay outstanding debts or obligations (Tuovilla, 2024). In bankruptcy, there is a particular study that is called bankruptcy risk and it can be explained as a risk when a company is unable to meet its financial obligations and will eventually file for bankruptcy (Kenton, 2021).

Past Studies

Table 1. Past Studies of Financial Ratio and Bankruptcy Risk of Prediction of Pt Indofood Sukses Makmur

No	Author Name	Title of The Past Study	Variable	Result
1	Wiwiek Mardawiyah Daryanto, Jessika Ina Putri Ginting, and Salsabila Aathirah Boekoesoe (2021)	An Analysis of Financial Performance And Bankruptcy Prediction: Case Study of PT Indofood Sukses Makmur TBK Based on 2015-2019	Profitability Ratios, Liquidity Ratios, Activity Ratios, Solvency Ratios, Working Capital, Retained Earnings, Earning before interest and taxes, Sales, Market Value of Equity, and Book Value of Debt	The result the financial ratio EPS that prove the profit increasing In addition, measuring the bankruptcy of the company current position is in"caution zone" and nearly to the "safe zone".
2	Tri Wahyu Utami and Ali Handana (2022)	Bankruptcy Prediction Analysis Using the Altman Z-Score Method at PT. Indofood Sukses Makmur, Tbk	Working Capital, Retained Earnings, Earning before interest and taxes, Sales, Market Value of Equity, and Book Value of Debt	The result show that PT Indofood Sukses Makmur Tbk doesn’t have any efforts to improve financial performance, From the year 2016, 2017, and 2018 PT. Indofood Sukses Makmur Tbk is classified as a company that possesssed high-risk bankruptcy

3	Anjel Monika LT, Bon Jovi M Panjaitan, Emya M.K Tummangger, and Rahma Nadila Ulfa (2023)	Analysis of Financial Ratio at PT. Indofood Sukses Makmur Tbk in 2020-2022	Profitability Ratios, Liquidity Ratios, Activity Ratios, Solvency Ratios	The research results show the average financial ratio results in 2020 were better than two years next which are 2021 and 2022

2. **CHAPTER-**METHODOLOGY

This study is going to use quantitative data with the descriptive approach as the scientific methodology for collecting the data. Furthermore, this study is going to use secondary data which is conducting the study based on the financial report of PT Indofood Sukses Makmur Tbk 2018-2023.

To measure the data, this study is going to use descriptive financial ratios analysis in order to evaluate the financial performance of PT Indofood Sukses Makmur TBK 2018-2023 from financial repot including balance sheet and income statements. The financial ratios are divided into 4 groups which are Profitability, Liquidity, Activity, and Solvency.

2.1. Financial Ratio Analysis

Profitability

Profitability is the measurement of how well a business or company turns its expenses into profits for its owners which means profitability analysis is a process of calculating or analyzing the profits of a business that can help identify the revenue streams and a moment of reducing the expenses (Kelkar, 2024). This method uses Return on Investment(ROI) and Return on Equity (ROE). Return on Investment is a performance measurement that being used to evaluate the efficiency or profitability and Return on Equity is a perfomance meausrement that focus on determining how well the companies generates those profits (Fernando, 2024).

a. Return on Investment

$$\frac{EBIT + Depriciation}{Capital\ Employed}\ x\ 100\%$$

b. Return on Equity

$$\frac{Net\ Income}{Shareholders\ Equity}\ x\ 100\%$$

Liquidity

Liquidity ratio can be defined as financial metrics used to determine a debtor's ability to pay off current debt obligations without raising external capital (Hayes, 2024).

Liquidity ratio consists of the current ratio and cash ratio in order to measure the financial performance (Stevy and Djohan, 2023)

c. Cash Ratio

$$\frac{Cash + Depriciation}{Current\ Liabilities}\ x\ 100\%$$

d. Current Ratio

$$\frac{Current\ Asset}{Current\ Liabilities}\ x\ 100\%$$

Activity

Activity Ratio is financial metric that indicates how efficiently a company is leveraging and managing the assets on its balance sheet, to generate revenues and cash (Kenton, 2020). Activity Ratio is divided into 3 ratios to calculate it: Collection Periods can be defined as a number of days it takes a business to collect and convert its accounts receivable into cash (Sudhakshina, 2024), Total Asset Turnover is the total asset cycle speed in a certain period (Rajagukguk & Siagan, 2021), and Inventory Turnover is the amount of time that passes from the day a company purchases an item until it is sold (Jenkins, 2024).

e. Collection Periods

$$\frac{Average\ Account\ Receivable}{Sales\ Revenue}\ x\ 365$$

f. Total Asset Turnover

$$\frac{Revenue}{Capital\ Employed}\ x\ 100\%$$

g. Inventory Turnover

$$\frac{Cost\ of\ Good\ Sold}{Average\ Inventory}$$

Solvency

Solvency analysis is a method of assessing a company's ability for the purpose to meet financial obligations, such as debts and interest payments (Aprilyani et al, 2024). In order to measure the solvency, this study is going to use Total Equity to Total Assets which is the measurement of the amount of equity the business has when comparing it with the total assets.

h. Total Equity to Total Assets

$$\frac{Total\ Equity}{Total\ Asset}\ x\ 100\%$$

2.2. Stock Performance with PER, PBV, and EPS

Other than the descriptive financial ratio, this study uses other ratios need to be considered to identify whether PT Indofood Suskes Makmur Tbk’s financial condition is healthy or not. Therefore, this study use the stock performance ratio consisting EPS, PER, and PBV.

Earnings per Share (EPS)

Earning per Share can be defined as a financial metric that indicates how much money a company makes for each share of its stock or form of giving profit to shareholders from each share owned (Sunaryo, 2020).

$$EPS = \frac{Net\ Income}{Number\ of\ Shares\ Outstanding}$$

Price-to-earnings ratio (PER)

The price-to-earnings Earnings Ratio refers as a measure of a company's stock, especially for assigning value by comparing its share price to its earnings per share (Ghaeli,2017).

$$PER = \frac{Market\ Price\ per\ Share}{Earning\ per\ Share}$$

Price-to-Book Value (PBV)

Price-to-Book Value is a comparison of the market. value of a stock to the book value, that being used to know whether the level of the stock price is overvalued or undervalued from the book value (Veronica, 2022).

$$PBV = \frac{Market\ Price\ per\ Share}{Book\ Value\ per\ Share}$$

2.3. Altman Z-Score

Altman Z-Score is a numerical model being used as a tool used to predict the bankruptcy rate of a company by calculating. the value of several ratios and plugged it into one score (Margingsih, 2022). Altman Z-Score used five indicator ratios in finance, namely; Working Capital to Total Assets (WCTA), Earnings Before Interest and Tax to Total Assets (EBITTA), Market Value of Equity to Total Liabilities (MVTL), Retained Earnings to Total Assets (RETA), and Sales to Total Assets as the companies are grouped based on the high and low probability of bankruptcy (Pratiwi et al, 2022). The range is if $Z < 1.81$ – the firm is bankrupt, if $1.81 < Z \leq 2.90$ – the company is in a "grey area", if $Z > 2.90$ – the company might be considered economically healthy. The form of the Altman Z score is:

$$Z = 1.2\ X1 + 1.4\ X2 + 3.3\ X3 + 0.6\ X4 + 1.0\ X5$$

X1 = Working capital/total assets;

X2 = Retained earnings/total assets;

X3 = Earnings before interest and taxes/total assets;

X4 = Market value of equity/ book value of total debt;

X5 = Sales/total assets.

3. **CHAPTER**-RESULT AND DISCUSSION

3,1, Financial Ratio Analysis

Profitability Ratio Analysis

Table 2. Profitability Ratio from 2018-2023

PROFITABILITY RATIO		
Period	**ROE**	**ROI**
2018	12.4%	13.6%
2019	13%	17.7%
2020	15.2%	12.2%
2021	15.8%	14.9%
2022	11.8%	15.8%
2023	13.7%	15.3%

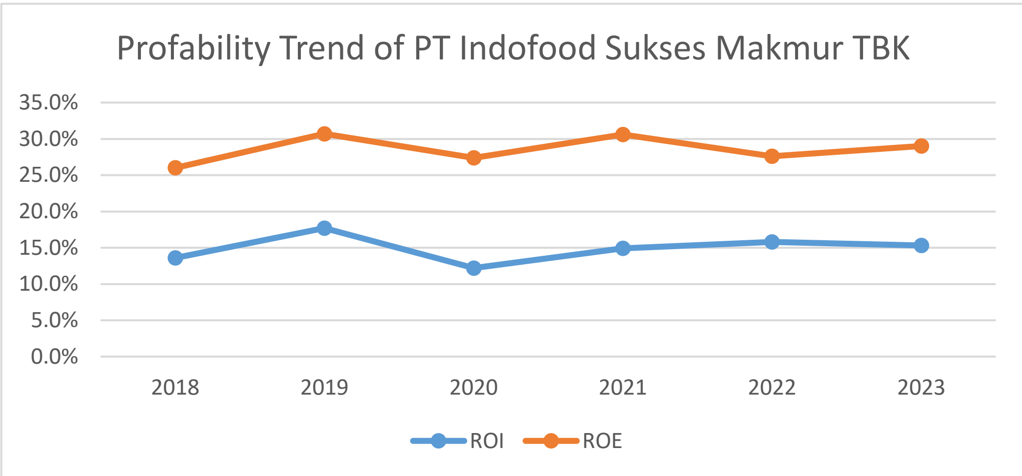

Figure 1: Profitability Trend of PT Indofood Sukses Makmur Tbk (2018-2023)

The outcome of Return on Equity (ROE) of PT Indofood Sukses Makmur Tbk continues to fluctuate between 2018-2023. Starts in 2015 with 12.4% and the highest percentage is reached in 2021 at 15,8% based on Table 2. However, the ROE will decrease again in 2022 before it increases in 2023. This showed how PT Indofood Sukses Makmur Tbk inconsistency or keeps going up and down in the ability to use assets to become profits. However, it has not reached the lowest, which indicates that the ROE can potentially grow over the year.

Return on Investment (ROI) also fluctuates even though it is more consistent compared to ROE. It started at 13.6% in 2018 and reached 17.7% in 2019 as the highest. However, starting from 2020, the ROI decreased again. Then, it continued to increase again in 2021-2022 before slightly decreasing in 2023 Therefore, PT Indofood Sukses Makmur Tbk still have enough possibility to grow in investment.

Liquidity Ratio Analysis

Table 3. Liquidity Ratio from 2018-2023

LIQUIDITY RATIO		
Period	**Cash Ratio**	**Current Ratio**
2018	28%	107%
2019	56%	127%
2020	62%	137%
2021	76%	134%
2022	88%	179%
2023	111%	192%

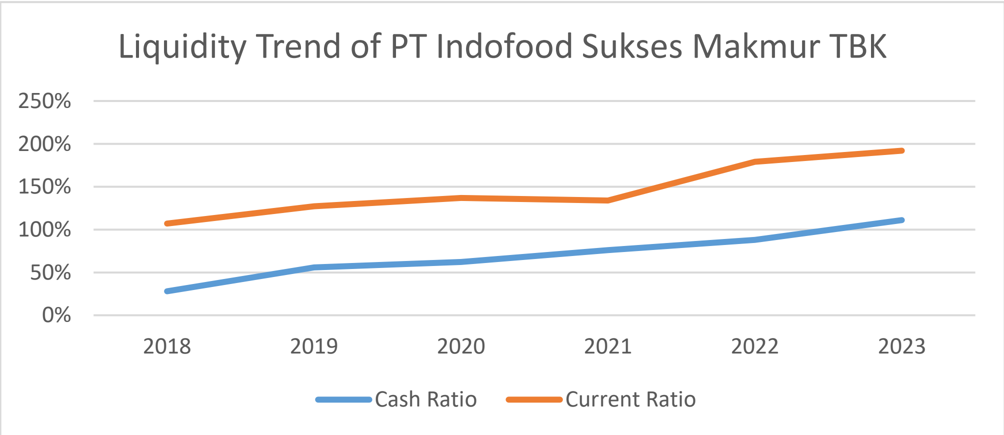

Figure 2: Liquidity Trend of PT Indofood Sukses Makmur Tbk (2018-2023)

Liquidity analysis of PT Indofood Sukses Makmur Tbk established by the cash ratio, showed that 2018 has 28%. However, the company has a consistent increase during 2018-2023, especially with the biggest value in 2023 which is 111%. The Current Ratio also has 2018 as the lowest, but like the cash ratio it consistently increased from 2018-2023 with the highest one being in 2023, 192%. It means PT Indofood Suskses Makmur Tbk has an improved liquidity on paying off the short-term liabilities in 2018-2023 period.

Activity Ratio Analysis

Table 4. Activity Ratio from 2018-2023

ACTIVITY RATIO			
Period	Collection Period	Inventory Turnover	Total Asset Turnover
2018	26.9	52	112.3
2019	25.8	48.3	107.1
2020	32.3	50	60.5
2021	31.1	53	71.5
2022	29.6	50	74
2023	28.3	46	72.7

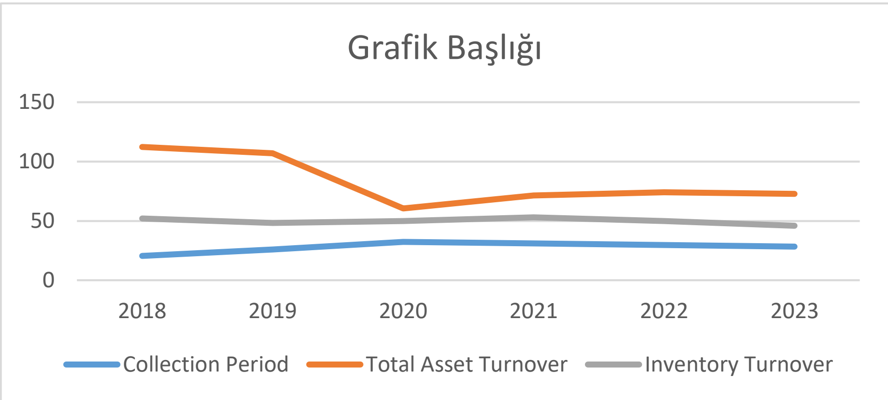

Figure 3: Activity Trend of PT Indofood Sukses Makmur Tbk (2018-2023)

Activity analysis presented by Collection Period (days), Inventory Turnover (days), and Total Asset Turnover (%) from the Table 6. The Collection Period of PT Indofood Sukses Makmur Tbk fluctuated as it started going down from 2018-2019 and began to increase in 2020 with the highest period is 32.3. However, from 2021-2023, the period continues to decrease. As for the inventory turnover, it face a decrease from 2018-2019 and an increase in 2020-2021 with the highest in 2021 a turnover is 53. Then, it faces a decrease from 2022-2023. The total Asset Turnover similar to the other two also faces a decrease in 2018-2020, then goes up in 2021 before it decreases again in 2022-2023. It means PT Indofood Sukses Makmur is tying up too much capital in fixed assets especially in 2023.

Solvency Analysis

Table 5. Solvency Ratio 2018-2023

SOLVENCY RATIO	
Period	Total Equity To Asset
2018	52.5
2019	56.3
2020	48.5
2021	48.5
2022	51.8
2023	51.8

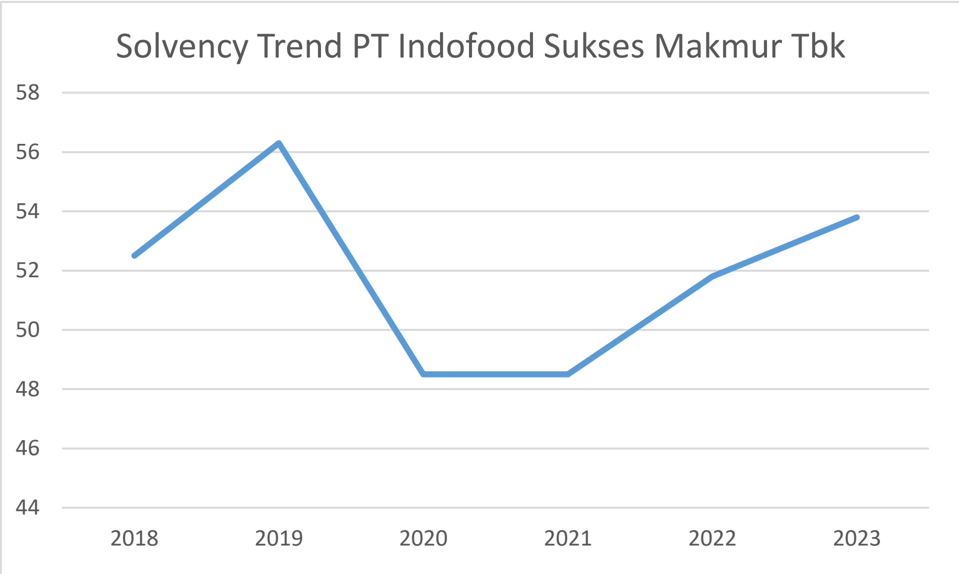

Figure 4: Solvency Trend of PT Indofood Sukses Makmur Tbk (2018-2023)

Solvency analysis of PT Indofood Sukses Makmur Tbk established by Total Equity to Total Asset (TETA). Figure 4 shows the trend ratio is fluctuating from 2018 to 2023. The Total Equity to Total Asset tends to go down and up especially from 2018-2019 which goes up, then goes down in 2020-2021, and goes up again in 2022-2023. It means in 2022-2023, PT Indofood Sukses Makmur Tbk has staken more debt.

3.2 Stock Performance with EPS, PER, and PBV

Earning Per Share

Table 6. Earning Per Share of PT Indofood Sukses Makmur 2018-2023

Period	Earning Per Share
2018	474.9
2019	559
2020	735.2
2021	872.7
2022	724.3
2023	927.9

Table 6 shows the Earnings per Share (EPS) of PT Indofood Sukses Makmur Tbk from 2018 to 2023. There was a significant increase in the ratio. This indicates there is a rising productivity of PT Indofood Sukses Makmur Tbk. The highest point happened in 2023 derived from the net profit margin after tax.

Table 7. Price to Earnings Ratio of PT Indofood Sukses Makmur 2018-2023

Period	Price to Earnings Ratio
2018	15.7
2019	14.18
2020	9.32
2021	7.25
2022	9.29
2023	6.95

Table 7 shows the Price-to-Earnings Ratio (PER) of PT Indofood Sukses Makmur Tbk from 2019 to 2023. The price-to-earnings ratio keeps going down from 2018 to 2021 which means during that period the company has a higher chance of probability. However, the ratio increased a bit in 2022 and significantly went down to 6,95 as the lowest ratio in 2023. This means PT Indofood Sukses Makmur Tbk has a higher chance of earning a profit.

Table 8. Price to Book Value of PT Indofood Sukses Makmur 2018-2023

Period	Price to Book Value
2018	1.95
2019	1.84
2020	1.42
2021	1.14
2022	1.10
2023	0.96

Table 8 shows the Price-to-Book Value (PBV) ratio of PT Indofood Sukses Makmur Tbk from 2015 to 2019. This ratio was used to measure the profitability performance of the company. The PBV ratio fluctuated according to the rising market price. The high price of

PBV occurred in 2018 as much as 1.95 times. On the other hand, PT Indofood Sukses Makmur Tbk has a stock undervalued as its value keeps decreasing in 2023, it has the lowest book value which is 0.96. It means PT Indofood Sukses Makmur's stock price is low compare to the earning

3.3 Altman Z Score Result

Table 12. Altman Z-Score result of PT Indofood Sukses Makmur Tbk 2018-2023

Period	Z-Score
2018	2.245059179
2019	2.580257698
2020	3.567342331
2021	3,235562849
2022	3.235562849
2023	3.326383947
Average	3.026664

Table 12 shows from 2018-2023 PT Indofood Sukses Makmur Tbk outcome ranged between 2.24 and 3.32. The nominal indicates that PT Indofood Sukses Makmur is in the Economic Healthy Zone as it in the range Z>2.90. Looking at the result with an average of 3.02 and the highest mark at 3.56 which surpasses the 2.9 mark it indicates that PT Indofood Sukses Makmur Tbk is economically healthy in terms of its financial condition or fall into a safe zone from bankruptcy.

CONCLUSION AND RECOMMENDATION

The study of the financial performance of PT Indofood Sukses Makmur have the indicators are divided into four classifications: Profitability, Liquidity, Activity, and Solvency ratios. The result showed that PT Indofood Sukses Makmur Tbk the probability ratios are increasing which mean the company is now generating profit, the liquidity ratios are consistently increasing which means the company is better able to meet its short-term obligation, the activity ratios decreasing which means the company is too much capital tied up in fixed assets, and the solvency ratio is increasing which mean the company's debt is increasing. According to the stock performances, the indicator ratios are Earning per share (EPS), Price-to-earnings ratio (PER), and Price-to-book value (PBV). Based on the result, the EPS is increasing and that proves the profit is increasing. The PER is significantly lower than the previous year, 2022 which indicates the company has a good financial performance. However, PBV keeps decreasing through 2018-2023 which mean the stock price is quite low compare to the earning. Based on the result of Altman Z-Score the average is 3.027 which means PT Indofood Sukses Makmur Tbk's financial condition is now economically healthy or in the safe zone. Thus, PT Indofood Sukses Makmur Tbk based on this study is in safe zone from bankcrupty and still quite well on generating profit. In order to improve the financial perfomance, PT Indofood Sukses Makmur Tbk needed to improve the asset's management.

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CHAPTER 4

Financial Performance Analysis and Evaluation of PT Campina Ice Cream Industry Tbk using DuPont System from 2017 to 2023

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ABSTRACT

PT Campina Ice Cream Industry Tbk is one of the leading ice cream producers in Indonesia, priding itself on its special products made from natural, hygienic, and high-quality ingredients. It is a local ice cream company that went public in 2017. Much like many other businesses, the impact of social distancing and activity restrictions during the COVID-19 pandemic on most of its workers, customers, and potential customers severely caused a downturn in the company's financial performance. This study aims to analyze how PT Campina Ice Cream Industry Tbk performed financially from 2017 to 2023, the years before, during, and after the COVID-19 pandemic. By using the DuPont method of financial analysis to evaluate the company's financial performance for the period 2017-2023, it was found that the COVID-19 pandemic is substantially impacting the financial situation of the company, proven by a big downturn of ROE and its components during the pandemic, even though there was healthy growth in the years prior. The great recovery of ROE and its components in the following years also proves that the management of PT CAMP handled the COVID-19 pandemic very well.
Keywords: DuPont Analysis, Return on Equity, Profitability, COVID-19, PT Campina Ice Cream Industry Tbk

1. INTRODUCTION

The COVID-19 pandemic undoubtedly disrupted many sectors. One such sector that is affected is the ice cream industry. Indonesia is the largest ice cream market in Southeast Asia (6Wresearch, 2024). This is not a coincidence, since it is quite popular in the community as a snack, and is enjoyed by people of all ages (Prayogi & Malik, 2022). The data showed that ice cream consumption amounted to 0.63 liters for every person per year from 2013 to 2018, increased to 0.7 liters in 2019, and further increased to 0.73 liters in 2020 (Khalis, Andarwulan, Koswara, & Talitha, 2020). With the limitation for the customers and potential customers to go outside and the disruption of the supply chain, the COVID-19 pandemic contributes as one of the factors for the financial health of the ice cream company.

One of such company is PT Campina Ice Cream Industry Tbk. Founded as a home-based firm industry by Darmo Hadipranoto on July 22, 1972, which then transformed into PT Campina Ice Cream Industry in 1994, the company went public in 2017 (CAMP) and has established itself in the Indonesian ice cream market (PT Campina Ice Cream Industry Tbk, 2024). The objective of this study is to assess the financial performance of PT Campina Ice Cream Industry Tbk before, during, and after the COVID-19 pandemic and whether the pandemic has affected the company. The study will be conducted using the DuPont method, for the 2017 to 2023 period of before, during, and after the pandemic. The ROE of PT CAMP is on a rising trend from 2017 to 2019, only then to have a big downturn in 2020. In 2021 the company successfully regained its healthy financial situation with the huge increase of ROE, then a trend of increasing ROE continued until 2023. Based on this, it can be deduced that the pandemic has significantly affected the financial situation of PT CAMP. The result of this study will be useful for anyone who wants to know about the financial information, and want to assess the quality of PT Campina Ice Cream Industry Tbk's financial reports in terms of profitability, and how well the company prepares for emerging, unplanned situations in the market.

2. LITERATURE REVIEW

DuPont Model Analysis

The DuPont Method, generally known as the DuPont Method of Financial Analysis, is a financial performance analysis that breaks down the Return on Equity (ROE) of a company into its components (Henry, Robinson, & Van Greuning, 2012). It was developed by electrical engineer F. Donaldson Brown for DuPont Corporation in 1918 to evaluate key financial measures to assess a company's operational efficiency and profitability (DARYANTO, WIBOWO, & JAFFAR, 2020). This analysis can describe the overall condition of the company, which includes the efficiency level, asset usage, and net profit on the product sales generated by the company (Hutasoit, 2019). The original DuPont analysis model, the three-step DuPont model, used 3 main indicators, which are Net Profit Margin (NPM), Total Asset Turnover (TATO), and Leverage or Equity Multiplier (EM) (Kijewska, 2016). The original DuPont formula is described as (Henry, Robinson, & Van Greuning, 2012):

$$RoE = Net\ Profit\ Margin\ x\ Total\ Asset\ Turnover\ x\ Equity\ Multiplier$$

Each of the components of the three-step DuPont model can be expanded further. Net Profit Margin (NPM) measures profitability by dividing net income by the revenue that is left after subtracting all of the expense times one hundred percent. Bigger NPM means the company is good at turning sales into actual profit. Henry, et al., (2012) described the formulas as follows:

$$Net\ Profit\ Margin = \frac{Net\ Income}{Revenue}\ x\ 100$$

Total Asset Turnover calculates how effective a company generates revenues using its assets. Bigger TATO means the company is efficient at generating revenue by using its assets. Henry, et al., (2012) explained the formulas as:

$$Total\ Asset\ Turnover = \frac{Revenue}{Total\ Assets}$$

And lastly, leverage or Equity Multiplier (EM) shows how much the shareholder equity or debt finances a company's total assets. Bigger EM means the company finances its assets mainly with debt. Henry, et al., (2012) depicted the formulas as follows:

$$Equity\ Multiplier = \frac{Total\ Assets}{Shareholder\ Equity}$$

Therefore, by expanding the formula, Henry, et al., (2012) combined them all to get a relationship as such:

$$\frac{Net\ Income}{Shareholder\ Equity} = \frac{Net\ Income}{Revenue}\ x\ \frac{Revenue}{Total\ Assets}\ x\ \frac{Total\ Assets}{Shareholder\ Equity}$$

By using this formula, this study will try to analyze the financial health of PT Campina Ice Cream Industry Tbk (CAMP) to assess the impact of the COVID-19 pandemic on the company's financial situation.

3. RESEARCH METHOD

The method used in this research to assess the financial situation of PT CAMP is the original three-step DuPont model. The analysis will be using ROE and its three components for the period of 2017-2023, that is before, during, and after the COVID-19 pandemic, and then further assess the trend to understand its impact on the financial health of the company.

Data Collection

The data used for this study is taken from the financial reports of PT CAMP from 2017 to 2023 and is available on the company's official website, therefore, can be accessed by everyone. The data provided then will be analyzed accordingly with the three-step DuPont model. The data collected such as Net Income, Revenue, Total Assets, and Shareholder Equity will be in Indonesia Rupiah based on the company's financial reports.

Data Analysis

With the original DuPont model, this study will analyze the financial situation of PT CAMP by comparing the company's ROE and its three components from 2017 to 2023. The company was chosen because it is one of the biggest local ice cream companies, and it just went public in 2017 so the impact of the COVID-19 pandemic should have more impact on them. The data before, during, and after periods of the COVID-19 pandemic are then compared to see the financial situation of the company and evaluate the effects of the COVID-19 pandemic.

The findings are then interpreted to understand how the NPM, TATO, and EM affected the ROE of each period.

4. RESULT AND DISCUSSION

Net Profit Margin

To calculate the Net Profit Margin (NPM) in this method, the data that need to be presented are Net Income and Revenue for each year from 2017 to 2023, which is shown in the table 1 below.

Table 1. Net Profit Margin Calculation

Year	Net Income (In billion IDR)	Revenue (In billion IDR)	Net Profit Margin (%)
2017	43.42	944.84	4.60
2018	61.95	961.14	6.45
2019	76.76	1,028.95	7.46
2020	44.05	956.63	4.60
2021	100.07	1,019.13	9.82
2022	121.26	1,129.36	10.74
2023	127.43	1,135.79	11.22

Source: Author analysis from data provided by PT CAMP annual reports

The comparison can be better understood in the form of the chart depicted in Figure 1 below.

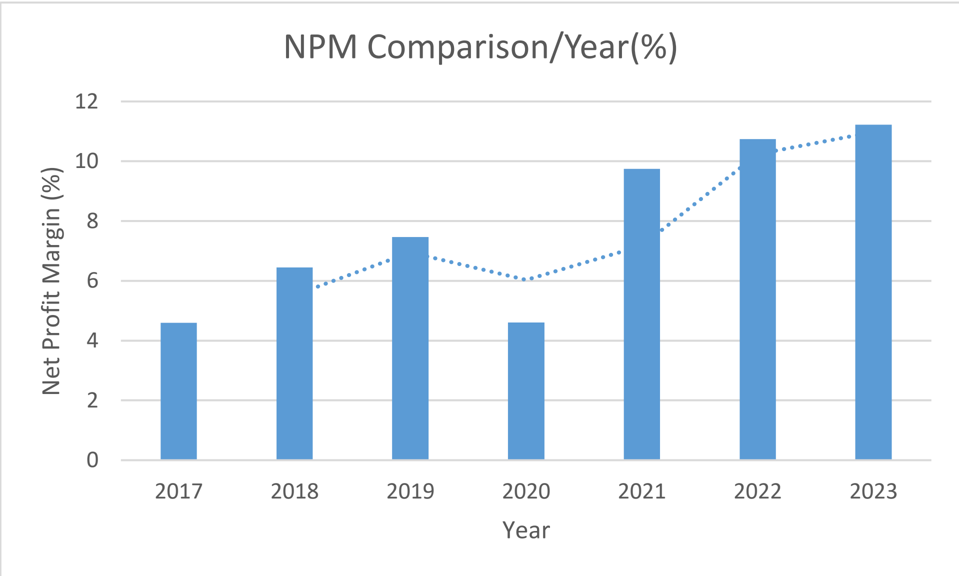

Figure 1. Net Profit Margin chart of PT CAMP for 2017 – 2023

As shown in Figure 1, the NPM of PT CAMP shows a good trend of rising steadily from 2017 to 2019 (4.60% to 7.46%), showing a healthy financial condition for the company. But then the NPM value significantly decreased in 2020 (4.60%), only to then rising again in 2021 to 2023 (9.82% to 11.22%). This decrease is caused by a major downturn in net income, a staggering decrease of 46.36% from IDR 76.76 in 2019 to IDR 44.05 in 2020. There is also a decrease of 7.03% in revenue, with only IDR 956.63 billion in total revenue compared with IDR 1,028.95 billion in 2019. With a bigger decrease in net profit compared to revenue, the value of NPM in 2020 will be lower than what would be considered healthy compared to the previous years. The major event that can be attributed as the main cause is COVID-19, because the still spreading COVID-19 pandemic at the time put so much pressure on people's purchasing power, sales, and production costs, which then caused changes in consumer behavior and lesser mobility to sales area (Campina, PT, 2021).

The net income and revenue are recovering and increasing again in 2021 thereafter. With COVID-19 pandemic lockdowns and restrictions starting to get relaxed in 2021, the company finally started to get hold of its previous healthy financial situation back again, with a 127.19% increase in net income and a 6.53% increase in revenue. Bigger increase in net income compared to revenue makes NPM value higher, and shows that even though PT CAMP hasn't recovered fully yet, the company's financial situation is starting to recover.

Total Asset Turnover

To calculate the Total Asset Turnover (TATO) in this method, the data that need to be presented are Revenue and Total Assets for each year from 2017 to 2023, which is shown in the table 2 below.

Table 2. Total Asset Turnover Calculation

Year	Revenue (In billion IDR)	Total Assets (In billion IDR)	Total Asset Turnover (Times)
2017	944.84	1,211.18	0.78
2018	961.14	1,004.28	0.96
2019	1,028.95	1,057.53	0.97
2020	956.63	1,086.87	0.88
2021	1,019.13	1,146.24	0.89
2022	1,129.36	1,074.78	1.05
2023	1,135.79	1,088.73	1.04

Source: Author analysis from data provided by PT CAMP annual reports

The data can be better understood in the form of the chart depicted in Figure 2 below.

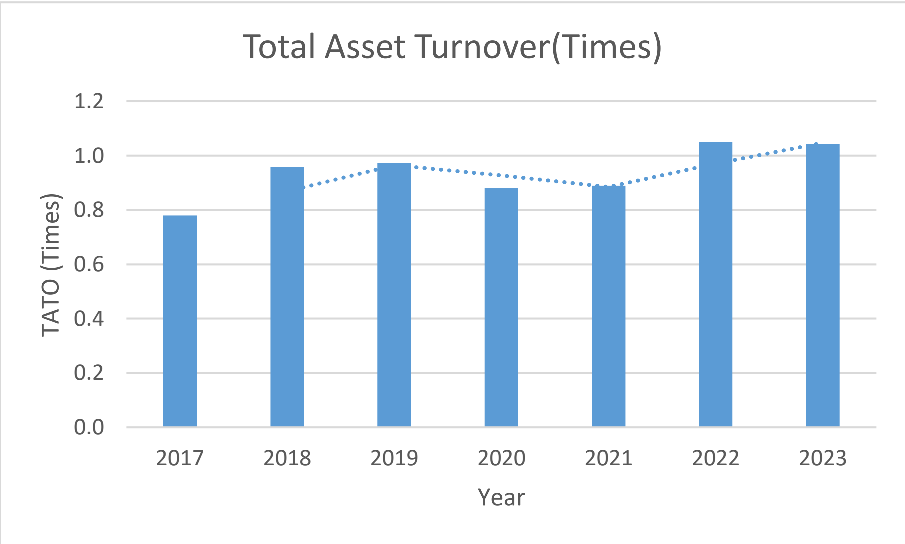

Figure 2. Total Asset Turnover chart of PT CAMP for 2017 – 2023

As with NPM, TATO showed a trend of rising too from 2017 to 2019, only to decrease in 2020, as shown in Figure 2. This is caused by the increase in assets by 2.77% in 2020. The trend of total asset increase continues to 2021, with a 5.56% increase, and then only decreases in 2022. Total assets increased again in 2023, which caused the TATO value to drop slightly again. The company reported that this increase is primarily due to the increase in the value of fixed assets (Campina, PT, 2022). Although the revenue also increased in 2021, the TATO value of 2021 only increased a little because the total assets in 2021 are still high compared to previous years. The company reported in its annual report book that in 2020 and 2021, both of its current and non-current assets increased compared to the previous years. The main factor behind the increase in total assets in 2020 and 2021 is the Purchase Down payment (Campina, PT, 2022), and this too, can be attributed to the COVID-19 pandemic. Despite this, even though it has decreased, PT CAMP's TATO value is still above the industry standard even in the pandemic situation, and even able to increase even more once the pandemic subsides.

Equity Multiplier

Next, to calculate the Equity Multiplier (EM) in this method, the data needed are Total Assets and Shareholder Equity for each year from 2017 to 2023, which is shown in the table 3 below.

Table 3. Equity Multiplier Calculation

Year	Total Assets (In billion IDR)	Shareholder Equity (In billion IDR)	Equity Multiplier (Times)
2017	1,211.18	837.91	1.45
2018	1,004.28	885.42	1.13
2019	1,057.53	935.39	1.13
2020	1,086.87	961.71	1.13
2021	1,146.24	1,026.45	1.12
2022	1,074.78	941.45	1.14
2023	1,088.73	952.64	1.14

Source: Author analysis from data provided by PT CAMP annual reports

The data then can be converted into a chart for clarity, as shown in the following Figure 3.

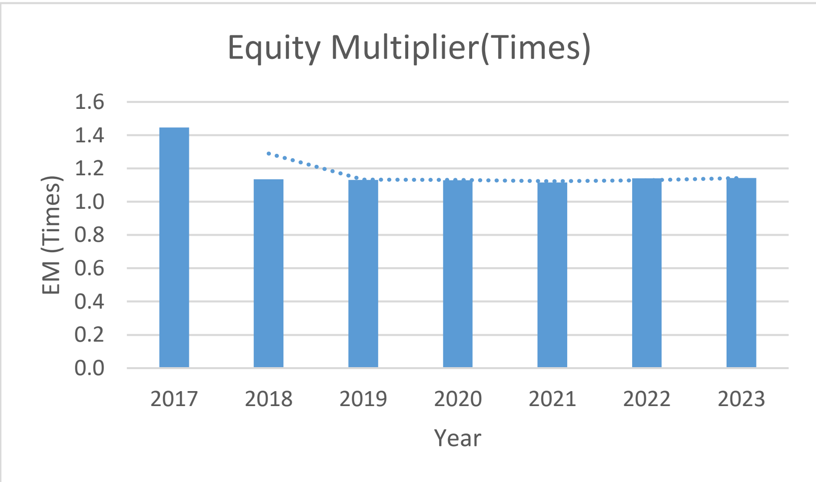

Figure 3. Equity Multiplier chart of PT CAMP for 2017 – 2023

Unlike NPM and TATO, the EM for PT CAMP does not really have many variations on them. As mentioned before, the total assets of PT CAMP increased and decreased yearly, but the amount of Equity counterbalanced it every time. The only time when the EM value differs is in 2012, back when the company first went public. After that, the EM value steadily hovered around 1.12. The low value of EM means that PT CAMP relies mostly on its equity, around 89.29% to finance its assets, rather than relying on debt. This indicates that the company relies mostly on equity rather than borrowing, showing a very low level of financial leverage. This means PT CAMP is adopting a conservative financing approach, with minimal reliance on debt. This approach minimizes financial risk, as the company does not have substantial liability like interest payments, which could strain its cash flow during tough periods like the COVID-19 pandemic.

Return on Equity

And finally, after all of its components are calculated and assessed, the ROE can be calculated, with the result shown in the table 4 below.

Table 4. Return on Equity (ROE) Calculation

Year	Net Profit Margin (%)	Total Asset Turnover (Times)	Equity Multiplier (Times)	Return on Equity (%)
2017	4.60	0.78	1.45	5.18
2018	6.45	0.96	1.13	7.00
2019	7.46	0.97	1.13	8.21
2020	4.60	0.88	1.13	4.58
2021	9.74	0.89	1.12	9.67
2022	10.74	1.05	1.14	12.88
2023	11.22	1.04	1.14	13.38

Source: Author analysis from data provided by PT CAMP annual reports

Using the data shown in the table 4, we can show it in the chart as depicted in Figure 4 below.

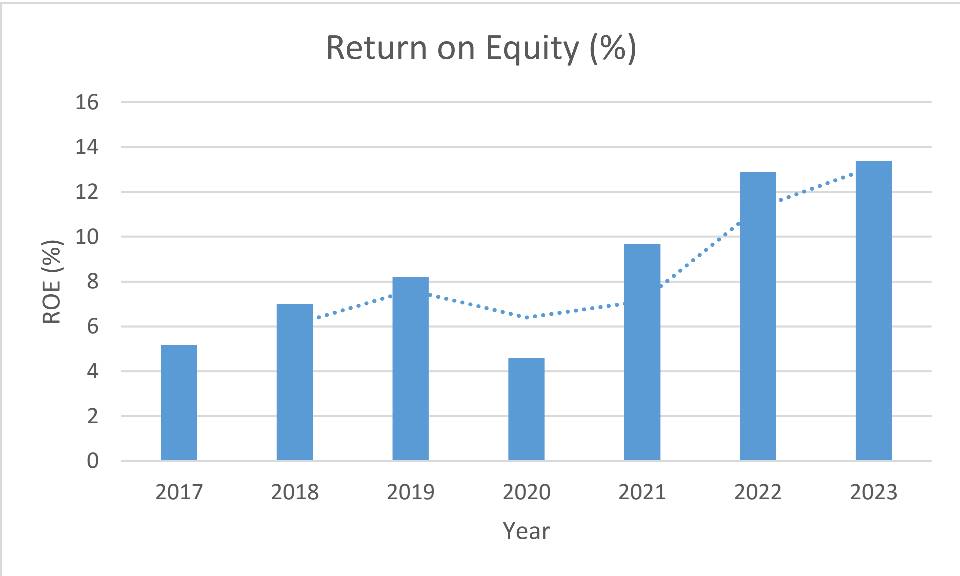

Figure 4. Return on Equity chart of PT CAMP for 2017 – 2023

As with its components, ROE showed a big downturn in 2020. With a huge -44.18% decrease from the ROE value in 2019, the ROE value in 2020 amounted only at 4.58%, the lowest value ever recorded since the company went public in 2017. All of this can be attributed to low NPM and TATO, which as explained before, were caused by the economic downturn and restrictions brought down by the COVID-19 pandemic.

With the exception of 2020 when the COVID-19 pandemic and all of its restrictions were at their peak in Indonesia, the ROE of PT CAMP showed a healthy increase from 2017 to 2019, growing from 5.18% in 2017 to 7%; and to 8.21% in 2018 and 2019 respectively. A massive increase followed in 2021, with a staggering increase of 111.17% from 4.58% to 9.67%. This trend of increases in ROE continues until 2023, reaching a peak record at 13.38%. This clearly indicates that the COVID-19 pandemic in 2020 massively affected the company's financial situation, although PT CAMP also showed a good recovery in its financial situation following the pandemic.

4. CONCLUSION AND RECOMMENDATIONS

Conclusion

As mentioned before, this study aims to assess and analyze the financial situation of PT CAMP before, during, and after the COVID-19 pandemic. After analyzing the ROE of the company using the DuPont method, it can be inferred that the COVID-19 pandemic is substantially impacting the financial situation of PT CAMP. The ROE of PT CAMP showed a healthy growth in the year preceding the pandemic (2017-2019), a major decrease during the pandemic (2020), a great recovery in the following year (2021), and back to a healthy increase in the year after that (2022-2023). The value of ROE of PT CAMP in the period of 2017 to 2023 averaged at 8.7%, and with the exception of during the pandemic, it is continuously rising, which also showed that the management of PT CAMP is handling the COVID-19 pandemic proficiently.

Recommendations

Based on the result of this study, it is recommended that PT CAMP should leverage its debt more because its Equity Multiplier is rather low and underutilized; to strengthen its risk management strategies to prevent another financial downturn like in 2020; and to keep monitoring its and the competitors in the industry’s financial metric to identify other possible risk and to look for improvements.

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CHAPTER 5

Analysis of Key Financial Performance and Financial Health Of Tobacco Company Using The Du Pont System Method And Altman Z – Score Evidence of PT HM Sampoerna Tbk Indonesia for Period 2018 – 2022

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ABSTRACT

The tobacco industry in Indonesia faces various challenges, including strict government regulations, anti-smoking campaigns, and changing consumer behavior that affects financial performance. As one of Indonesia's leading tobacco companies, PT HM Sampoerna Tbk Indonesia certainly faces the same issues. This study aims to analyze the financial performance and financial healthiness of tobacco companies in Indonesia, focusing on PT HM Sampoerna Tbk Indonesia, during the period from 2018 to 2022. The data used is secondary data collected from the published audited financial statements. The methods employed in this analysis are the Du Pont System and the Altman Z-Score. The Du Pont System helps identify factors influencing the company's profitability and operational efficiency, while the Altman Z-Score assesses the likelihood of bankruptcy. This research provides important insights into the company's financial position within Indonesia's tobacco industry and its implications for investors and other stakeholders. These insights can inform decision-making, investment strategies, and regulatory measures to promote sustainability and growth in the tobacco industry in Indonesia. It is hoped that managers can formulate company plans to enhance profitability and efficiency in cost structure amid financial difficulties. The analysis results show a decline in the financial ratios according to the Du Pont Method each year, despite the Z-Score remaining within the safe zone. However, if this trend continues, it could lead to serious financial issues, ultimately resulting in bankruptcy. Therefore, the company must manage its finances with great caution. Company managers should devise strategies that can boost sales, optimize operational expenses, and maintain the company's market value.
Keywords: Financial Performance, Financial Health, Bankruptcy, Tobacco Industry, Du Pont Method, Altman Z – Score.

1. INTRODUCTION

Economic development is essential for a country in order to enhance the equitable distribution of development for the welfare of its people (Dasser, 2020.). Indonesia has considerable potential to boost its economic growth, with key indicators reflecting this growth across various sectors. Notably, the manufacturing sector is of paramount importance due to its significant contribution to the country's revenue. Among the sectors driving this growth, the tobacco industry acts a pivotal role in Indonesia's socio - economic development. However, the tobacco industry is currently confronting substantial challenges, such as high excise taxes, anti-smoking campaigns, and shifting consumer behaviors. These factors are putting pressure on the industry’s financial performance and its long-term sustainability.

Several tobacco companies have gone public through IPO (initial public offering) on the Indonesian Stock Market. One of the leading tobacco firms in Indonesia is PT HM Sampoerna Tbk Indonesia. This company certainly faces the same challenges. Financial problems are one of the vital problems faced by companies in developing their business (As'ad, et al., 2023.). If the company can not maintain its operations and financial health, the company will face the risk of bankruptcy. Bankruptcy is an event where a company’s operational cash flow is unable to meet its current liabilities in full, forcing the company to make critical decisions to implement corrective measures (Hapsari, 2012).

A drop in profits or the occurrence of losses within a company may indicate a risk of bankruptcy, reflecting potential financial instability. Buari et al. (2017) define financial distress as a situation where a company can no longer meet its financial obligations, resulting in operational challenges. This failure to fulfill financial responsibilities is often the first step toward bankruptcy. Monitoring a company's financial health can provide an early warning of impending bankruptcy, allowing management to take corrective actions before the situation worsens (Prasandri, 2018). Measures of financial well – being can be examined both from an internal viewpoint, focusing on management efficiency, and from an external perspective, through the company’s financial reports.

Lutfi et al. (2021) highlighted that financial statements are essential for evaluating a company’s performance and overall financial condition. They provide a clear picture of the company’s financial standing and its ability to generate profits. Analyzing its financial ratios is critical to determine if a company is likely to survive or face bankruptcy. There are various approaches to evaluating financial performance and stability, two of the most commonly used being the Du Pont System and the Altman Z-Score. The Du Pont System, introduced by DuPont Corporation in 1920, offers an integrated method for assessing financial ratios, with a focus on profitability and return on equity. In contrast, the Altman Z-Score, developed by Edward Altman in 1986, is designed specifically to project a company’s risk of financial failure. The Z-Score aims to appraise a company’s financial health, categorizing it as stable, uncertain, or at risk of bankruptcy. This research explores both the financial performance and health of PT HM Sampoerna Tbk Indonesia, a leading company in the Indonesian tobacco industry, from 2018 to 2022. The analysis uses the Du Pont method to evaluate profitability and the Altman Z-Score to appraise financial health, providing a comprehensive view of the company's risk of bankruptcy. Given that the company is in manufacturing, the Genuine Altman Z-Score Model was applied in the analysis.

2. LITERATURE REVIEW

2.1 Financial Statement

The financial disclosures are essentially a means of communication that summarizes all of a company's activities (Novitalia Shinta et al., 2023.). They are typically presented in the form of balance sheets and income statements at specific points in time and are ultimately used as a tool for decision-making by the users of financial statements, based on their respective interests and needs. Hery (2015) explained that a company’s annual report consists of a series of financial statements presented in the following order :

1. Income Statement: This financial report outlines a company’s revenues and expenditures over a designated period, offering essential insights into its operational performance by assessing the balance between income and gains versus expenses and losses.
2. Statement of Owner’s Equity: This document provides an overview of the changes in the owner’s equity during a defined period, reflecting elements such as contributions, withdrawals, and retained earnings.
3. Balance Sheet: This financial statement details the company’s assets, liabilities, and equity as of a particular date, giving a concise representation of its financial position at that specific moment.
4. Statement of Cash Flows: This report provides a detailed overview of the company’s cash inflows and outflows, categorized into operating, investing, and financing activities, for a specified period.

2.2 Financial Performance

The company’s fiscal performance is an assessment of its financial health and achievements. The financial performance of a company also reflects changes in its overall condition and the outcomes it has achieved, which are heavily influenced by the effectiveness of the management strategies and policies in place (Ikhsan et al., 2016). This assessment is crucial for various parties, such as investors, creditors, analysts, the government, financial consultants, as well as the company’s management itself (Pulloh, 2016).

2.3 Bankruptcy

Bankruptcy refers to a situation where a company is no longer able to meet its financial obligations (Prihadi, 2010). Predicting bankruptcy helps guide stakeholders regarding the corporate financial performance, indicating whether it is likely to face challenges in the future. For company owners and investors, this prediction can inform decisions about whether to retain ownership or sell the company and invest elsewhere.

2.4 Du Pont System Method

Brigham and Houston (2010) explained that the method is used to perform an analysis that encompasses all activity ratios and profit margin on sales in order to highlight how these ratios influence profitability. This method can be used to show how asset turnover, profit margin, and debt are combined to achieve Return on Equity (ROE) or Return on Investment (ROI). Gendro Wiyono and Handri Kusuma (2017) explained The Du Pont system analysis technique is as follows:

a. Return on Investment (ROI) is a metric used to evaluate the company’s efficiency in generating net profits from its investments.

$$\text{ROI} : \frac{\text{Net Income}}{\text{Total Assets}}$$

b. Net Profit Margin (NPM) represents the company's net profit.

$$\text{NPM} : \frac{\text{Net Profit}}{\text{Total Revenue}}$$

c. Total Asset Turn Over (TATO) measures how effectively the funds invested in a company's total assets are utilized and circulated over a given period.

$$\text{TATO} : \frac{\text{Revenue}}{\text{Total Asset}}$$

2.5 The Altman Z-Score Model

The Altman Z-Score, created by Altman in 1968, is a statistical tool designed to measure the likelihood of the company experiencing financial instability. By calculating a Z-score, it provides valuable insights into a company's financial health and its ability to remain viable in the future. The following is the development of the Altman Z-Score Model in Hanafi (2014):

$$\text{Z} = 1{,}2\,\text{X}_1 + 1{,}4\,\text{X}_2 + 3{,}3\,\text{X}_3 + 0{,}6\,\text{X}_4 + 1{,}0\,\text{X}_5$$

Information:
Z: Overall Index
X1: Working Capital / Total Assets (WCTA)
X2: Retained Earning/ Total Assets (RETA)
X3: EBIT / Total Assets (EBITDA)
X4: Book Value of Equity / Total Liabilities (BVETL)
X5: Sales / Total Assets (STA)

There are three categories based on the Z-Score in the Altman Z-Score model, with the following assessment criteria (Hanafi, 2014):

a) Z - Score > 2.99 is categorized as a very healthy company and can be classified as a company unlikely to go bankrupt
b) 1.81 < Z-Score < 2.99 is a gray area, where it is uncertain whether the company will go bankrupt or not
c) Z-Score < 1.81 is categorized as a company with significant financial difficulties and a high risk of bankruptcy

3. RESEARCH METHOD

3.1 Data Collections Methodology

This study utilizes a data -driven research design with a descriptive approach. The goal of descriptive quantitative research is to provide an explanation and summary of various conditions, situations, and variables present in society, based on observed events. Empirical data, which is expressed numerically, facilitates precise measurement and statistical analysis. For this research, the author primarily relied on secondary data for data collection. The secondary data was gathered from the following sources:

- Financial disclosures of PT HM Sampoerna Tbk Indonesia for the period 2018-2022, which were collected from the publicly disclosed audited financial statements available through official channels.
- Additional sources required for the study were obtained from books and online resources, including academic papers, articles, journals, websites, and previous research related to the research topic. These sources were used to provide a detailed understanding of the subject and bolster the analysis.

This approach certifies that the study is built upon reliable and valid data, enabling a thorough examination of the financial performance and health of the company during the specified period.

3.2 Data Analysis Methodology

This study employs two data analysis methods, both relying on publicly available audited financial documents of PT HM Sampoerna Tbk Indonesia during the years 2018 to 2022. These financial reports will be analyzed through the application of the Du Pont System and the Altman Z-Score model.

The essential metrics derived from the Du Pont method, including ROI, NPM, and TATO, will form the basis for evaluating and comparing the company’s performance throughout the five-year period from 2018 to 2022, which serves as the sample for this analysis. Higher values of these ratios are indicative of stronger financial performance.

Additionally, to assess the company’s fiscal stability, the Altman Z-Score model will be used. This model is designed to evaluate the potential risk of bankruptcy, with results that can vary over time. The results will be classified according to bankruptcy risk levels: a higher Z-Score is associated with better financial stability.

4. RESULTS AND DISCUSSION

4.1 Du Pont Result

Through the Du Pont method, there are three main ratios used: ROI, NPM, and TATO. The results obtained from each ratio will naturally vary each year over the past five years.

Table 1. Du Pont System Method Result

No.	Company Name	Ratio	Period					Average
			2018	2019	2020	2021	2022	
1	PT HM Sampoerna Tbk Indonesia	ROI (%)	38,3	38,4	28,4	24,4	22,4	30,4
		NPM (%)	12,7	12,9	9,3	7,2	5,7	9,6
		TATO (times)	2,3	2,1	1,9	1,9	2,0	2,0

From Table 1 shows that the results of ROI, NPM, and TATO of PT HM Sampoerna Tbk Indonesia have consistently declined each year. Below is an explanation of the financial ratios:

1. The Return on Investment (ROI) has been on a consistent decline over the years. The Return on Investment (ROI) began to decline notably in 2020, occurring simultaneously with the start of the COVID-19 pandemic, and continued to decrease through 2022. Comparing the ROI in 2022 to 2018 reveals a drop of over 41%, highlighting a consistent decrease in the company's net profit after tax. Spanning from 2018 to 2022, the average ROI for the company was 30,4%.
2. The Net Profit Margin (NPM) has also continued to decrease each year. PT HM Sampoerna Tbk Indonesia's NPM has shown a notable decline starting in 2020, coinciding with the COVID-19 pandemic, and continued decreasing through 2022. A

comparison between the NPM in 2022 and 2018 reveals a reduction of over 55%. This trend corresponds with the company's ongoing decrease in net profit after tax each year. From 2018 to 2022, the average NPM for PT HM Sampoerna Tbk Indonesia was 9,6%.

3. Total Asset Turnover (TATO) of PT HM Sampoerna Tbk Indonesia has shown a slight decrease in performance when comparing the 2022 figure of 2.0 times to the 2018 figure of 2.3 times. A value of 2.3 denoting that for every 1 rupiah of assets, the company generates 2.3 rupiah in sales. The average TATO for PT HM Sampoerna Tbk Indonesia during the 2018-2022 period was 2.0 times. This indicates that the increase in total assets at PT HM Sampoerna Tbk Indonesia has not been aligned with the revenue generated.

4.2 Altman Z- Score Model Result

The criterion used in the Altman Z-Score involves five interrelated ratios. The Table 2 presents the results of the Z-score ratio calculations for further details.

Table 2. Altman Z – Score Model Result

No.	Company Name	Period	Ratio Yield					Z Point
			1.2(X_1)	**1.4 (X_2)**	**3.3(X_3)**	**0.6 (X_4)**	**1.0(X_5)**	
1	PT HM Sampoerna Tbk Indonesia	2018	0,75	0,41	1,27	23	2,29	27,749
		2019	0,68	0,39	1,18	9,621	2,083	13,958
		2020	0,59	0,24	0,74	5,4054	1,861	8,839
		2021	0,44	0,20	0,57	2,8182	1,862	5,883
		2022	0,37	0,17	0,50	2,202	2,029	5,262
Average Z - Point								12,338

The outcome of the Altman Z-score assessment above indicate that the financial condition of PT. HM Sampoerna Tbk Indonesia meets the standards set by Altman. The criteria are as follows:

a) A Z-score in excess of 2.99 reveals that the company is in a secure financial state (Non-Bankrupt).
b) A Z-score within 1.81 and 2.99 reveals that the company is in the "ambiguous zone," revealing it is grappling with financial problems. Although the company is at risk of bankruptcy, there is still a possibility for recovery, depending on the strategic actions and decisions taken by its management.
c) A Z-score beneath 1.81 reveals that the company faces the risk of bankruptcy (Bankruptcy).

Based on these criteria and the Z-score calculations, the Table 3 presents the financial condition of PT. HM Sampoerna Tbk Indonesia from 2018 to 2022.

Table 3. Analysis Of The Result of Z – Score Ratio

Year	Z-Score	Interpretation
2018	27,749	The company remains financially secure
2019	13,958	The company remains financially secure

2020	8,839	The company remains financially secure
2021	5,883	The company remains financially secure
2022	5,262	The company remains financially secure
Average	12,338	The company remains financially secure

The altered Z-score model analysis for PT HM Sampoerna Tbk Indonesia over the period of 2018 to 2022 shows a Z-score consistently above 2.99, suggesting that the company remained financially stable and was not at risk of bankruptcy. Throughout this period, PT HM Sampoerna Tbk Indonesia did not face significant financial challenges and stayed in a secure zone. While the company's total assets increased between 2018 and 2022, its Z-score steadily declined, primarily owing to a reduction in the company's stock price.

4.3 Discussion

The study reveals that, over the period from 2018 to 2022, PT HM Sampoerna Tbk Indonesia experienced a deterioration in its financial performance. This is evident from the decline in key financial ratios, including ROI, NPM and TATO. The reduction in these ratios signifies a diminished capacity of the company to generate profitability. Nevertheless, despite this decline, PT HM Sampoerna Tbk Indonesia did not show any signs of financial distress or an imminent risk of bankruptcy during the 2018-2022 period. The chance of bankruptcy was evaluated relying on its ratios and Z-Score results over the past five years.

A study by Mulatsih et al. (2019) also applied the Du Pont method and the Altman Z-Score model to evaluate the financial performance and health of companies. This research focused on companies listed on the Indonesia Securities Exchange within the pharmaceutical sector, covering the period from 2012 to 2016. The study included six companies: Darya Varia Laboratoria, Indofarma, Merck, Pyridam Farma, Merck Sharp Dohme Pharma, and Tempo Scan Pacific. The findings revealed that two of these companies exhibited a decline in financial performance according to the Du Pont method and were categorized in the gray area on the basis of the Altman Z-Score model: PT. Indofarma and PT. Merck Sharp Dohme Pharma.

As'ad et al. (2023) also conducted research on companies in the tobacco sector listed on the Indonesia Securities Exchange from 2017 to 2021, using the Altman Z-Score method to assess their financial health. The companies that were the subject of this research were Gudang Garam, HM Sampoerna, Bentoel, and Wismilak. There is a difference between the previous research and the current study, where the previous research analyzed the health condition of companies by comparing the scores obtained from the Altman Z-Score method among companies in the same sector, namely the tobacco industry, to determine which company had better health conditions. This study, in contrast to others, specifically examines the financial health of company HM Sampoerna using the Altman Z-Score model. As a result, a more in-depth analysis cannot be conducted to determine whether HM Sampoerna has better financial health compared to other companies in the same industry sector. Another difference between the previous research and the current study is the Altman Z-Score value, which shows a decrease in the average Altman Z-Score value by 36,89%. This indicates that the financial health of HM Sampoerna Tbk Indonesia has continued to decline, even though it remains in the safe range according to the Altman Z-Score.

Prasandri (2018) presented a study that compared three different methods for evaluating the financial health of companies: the Altman Z-Score, Zmijewski, and Springate methods. The research focused on the tobacco sector listed on the Indonesia Stock Market between 2013 and 2016. The comparison of results from these three methods during this period showed that the Springate methods and Altman Z-Score had the same degree of accuracy in predicting bankruptcy, at 25,00%. However, the Zmijewski method showed a slightly lower bankruptcy prediction rate of 18,75%.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

In summary, this study has highlighted key concepts that are essential for understanding and assessing the financial performance and health condition of a company. The application of the Du Pont method and the Altman Z-Score method gives crucial understanding in reviewing company's financial stability and performance, which are particularly useful for managers in making strategic decisions. The objective of this research was to analyze the financial performance and health of cigarette sub-sector companies, with a focus on PT HM Sampoerna Tbk Indonesia, during the 2018-2022 period. The goal was to determine whether the company could be categorized as one with potential bankruptcy risks or strong financial health.

According to the findings and analysis presented in this research, the following conclusions can be drawn:

1. According to the analysis using the Du Pont method, PT HM Sampoerna Tbk Indonesia has shown a declining financial performance over the years. This decline is evident in the three key ratios used in the Du Pont method: ROI, NPM, and TATO, all of which have demonstrated a downward trend annually. The factors contributing to the decrease in NPM, TATO, and ROA include a reduction in net income, which is influenced by rising total costs and the company's inefficiency in managing its assets, resulting in a small profit relative to the total assets.
2. In accordance with the analysis using the Altman Z-Score method, it is evident that PT HM Sampoerna Tbk Indonesia has remained in a very safe zone for the past five years. However, considering the continuous decline in the Z-Score results over the past five years, the company is projected to face potential bankruptcy if it does not manage its finances with greater caution.

In summary, the outcomes of this study imply that PT HM Sampoerna Tbk Indonesia experienced poor financial performance during the 2018-2022 period, as evidenced by the decline in NPM, ROI, TATO, and Z-Score. Although the company is still in the safe zone about bankruptcy according to the Z-Score during this period, it is recommended that the company's management adopt new strategies to safeguard its financial condition and reverse the declining financial performance observed over the past five years.

5.2 Recommendations

According to the findings of the research on PT HM Sampoerna Tbk Indonesia, the researcher offers the following recommendations:

1. It is advisable for the company's management to focus on improving financial performance, particularly concerning the variables used in the Du Pont method and the Altman Z-Score model. Given that the company demonstrates a declining financial performance and is at risk of potential bankruptcy, it is essential to increase sales, improve profitability by optimizing operating expenses as much as possible, and consider the market value of equity.
2. For investors, this research serves as an early warning in making investment decisions. Investors should be selective in choosing companies to invest in, particularly those with strong financial performance, thereby ensuring safer investment opportunities.
3. It is suggested that future research incorporate other financial performance evaluation models and bankruptcy prediction models as comparative tools to analyze financial performance and predict the potential for bankruptcy in companies.

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CHAPTER 6

Assessing the Debt-to-Equity Management PT. Mitra Adiperkasa TbK: Balancing Profitability and Financial Flexibility in the Retail Sector

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ABSTRACT

In the retail industry, managing debt-to-equity ratios is critical for balancing profitability and financial sustainability. PT Mitra Adiperkasa Tbk, has maintained a stable financial performance in recent years, utilizing debt strategically to support growth and operational efficiency. However, the company's significant reliance on debt financing raises a few questions about its long-term financial flexibility and ability to respond to economic fluctuations. This study aims to investigate PT Mitra Adiperkasa Tbk 's Debt-to-equity management practices and their impact on the company's profitability and financial stability. Using a quantitative analysis of financial ratios, specially focusing on the debt-to-equity ratio, profitability margins, and liquidity ratios. The study will examine how the company financial structure affects its operational resilience and capacity for sustainable growth. The data used in this analysis spans recent financial statements from 2018 to 2022, providing insights into trends in debt management and equity utilizationThe intent is to address the critical gap in understanding how retail companies like PT Mitra Adiperkasa Tbk balance debt with operations demand, particularly in a fluctuating economic environment. By analyzing the key financial ratio, the research paper will share some light on the company's approach to maintaining profitability while navigating the risk associated with high leverage.
Keywords: Financial Performance, Retail, Debt-to-equity Management, Financial Ratios, Profitability.

1.INTRODUCTION

One of the largest Retail companies in Indonesia and Southeast Asia, incorporated in 1995 PT. Mitra Adiperkasa TbK constructed its financial success by starting its growth in Jakarta, İndonesia. It opened its first outlet department Sogo holding its franchise rights here in Indonesia. Today the company stands with over 1,800 outlets with its robust presence in the lifestyle, fashion and sports segments, and operating an extensive portfolio of brands that cater a large customer base (Zara, Adidas, Marks & Spencer and more) (MAP, 2024).
MAP has demonstrated to hold a strong financial growth, able to adapt to the changing market dynamics and factors affecting the price fluctuations. Showing the company's resilience against the economic challenges, ability to expand into different segments, with adaptation of different selling channels after facing the post-pandemic effect (Bank Indonesia, 2023). According to a study by Julia Karina and Muhammad Fauzan in 2023, companies like MAP have adjusted to different strategies to maintain its performance success, such as using the Spin-off policy, where the company's financial description is passed through different financial ratios to understand the company's operational and financial performance reflecting on that period of time.
In 2022, MAP reported in its financial highlights a significant revenue increase at the value of Rp. 26.937 Billion, attributed to a surge in consumer spending post-pandemic and strategic investments in e-commerce and online channels for retail companies. This growth has been accounted for through the efforts of the company to evolve their capital structure, by increasing their reliance on Debt Financing. These kinds of financial decisions have allowed MAP's expansion and brand acquisitions but also have highlighted the importance of effective debt-to-equity management in ensuring profitability (MAP, 2022).
A major challenge facing PT. Mitra Adiperkasa Tbk is the management of its debt-to-equity ratio, which is indicative of the company's financial risk and flexibility. According to the company's financial statements, the debt-to-equity ratio fluctuated significantly, peaking at 168.45% in 2020 before declining to 115.55% in 2022 (PT. Mitra Adiperkasa Tbk. Annual Financial Reports (2018–2022). The results show a declining trend which at times can be interpreted as positive, the elevated ratio relative to industry standards raises concerns about financial sustainability, especially during periods of economic uncertainty. This problem highlights the need for a closer assessment of MAP's financial strategy and the implications of its capital structure decisions.
This study analyzes MAP's debt-to-equity management strategies, looking at how the business strikes a balance between financial flexibility and profitability. Evaluating MAP's financial leverage is essential to comprehending its capacity to maintain growth while reducing financial risks because of its ambitious expansion tactics and high capital needs. The study will examine how MAP's financial choices affect its competitive stance in the retail sector, shareholder value, and operational effectiveness. The following are the primary goals of the study:

- Examine the patterns in the capital structure and financial performance of MAP.
- Examine how its debt-to-equity ratio affects risk exposure and operational effectiveness.
- Provide suggestions on how to improve financial management in order to improve sustainability.

This study uses a quantitative approach, analyzing data extracted from PT. Mitra Adiperkasa Tbk's annual financial reports for the years 2018–2022. Key metrics such as net revenue, gross profit, operating profit margin, net income margin, and the debt-to-equity ratio are analyzed. The research also includes a comparison analysis against comparable studies on the

industry benchmarks and MAP'S previous performance to put MAP's performance in perspective. The study and conclusions are supported by secondary data gathered from reliable sources, such as industry reports and scholarly journals (Fatihudin, et al., 2018).
According to prior research, MAP's financial growth is mostly dependent on debt leverage, a tactic that has made expansion easier but increased financial dangers. Although the debt-to-equity ratio's downward trajectory from 2018 to 2022 is good, it will take consistent work to make sure that too much leverage doesn't jeopardize profitability. Although MAP's emphasis on increasing operational effectiveness and profitability margins offers a strong basis for tackling these issues, long-term sustainability requires tactical changes in financial management (Fatihudin, et al., 2018).

2. LITERATURE REVIEW

Financial performance according to Didin Fatihudin, Jusni, Mochamad Mochklas (2018), it is the achievement of the company’s financial performance for selected period of time, where it covers the information of collection and allocation of finance measured by capital usage, liquidity, solvency, company’s efficiency. and profitability
Financial statements are the records of the company’s cash flows, periodic balance sheets, and income statements. Which summarizes the financial changes and movements of the company, for which it is used to state the company’s financial performance (Didin, 2017).
Financial ratios are used as indicators on a company when needed to access the business performance through the company's financial data. These ratios will indicate results which can identify the company’s good or bad financial performance, and companies are able to reference these results to proceed to decisions that can be used by the company’s Board of Directors and potential investors. (BFI, 2023)
Debt to Equity ratio measures the company's total assets financed by creditors. It is interpreted as if the ratio is higher, the company’s financial performance is weak and is highly dependent on debt (BFI Finance, 2023). It requires the analysis of the company’s ability to pay its debt throughout its operational years, using the Solvency Ratio, which measures the company’s ability to meet its long term financial obligations. The formula is as below:
Debt to Equity Ratio: Debt to Equity Ratio = Total liabilities / Shareholder’s equity

3. RESEARCH METHOD

The research methodology in this study is structured to provide a thorough analysis of MAP's financial performance throughout the years of 2018 -2022. A quantitative approach is used in the analysis, and financial ratios are used to provide answers and results to the gap/issue of this research.

3.1 Research framework

This study uses a quantitative descriptive approach to evaluate the financial performance of MAP utilizing the financial reports of 2018 - 2022. The financial reports included the financial results and trends from the performance, providing strategic recommendations that are based on the financial metrics and financial ratios provided.

To ensure the clarity of the study's objective the following framework was employed:

3.1.1. Data source: Utilizing secondary data extratec from MAP's financial reports,specifically containing, Balance sheet, Income statement and financial ratios analysis from years of 2018-2022.

3.1.2 Metrics used:

- Financial Leverage Ratio: Reflecting the extent to which the company relies on equity to finance its assets.
- Debt-to-Equity Ratio: Indicating the level of financial risk and reliance on debt.
- Times Interest Earned (TIE) Ratio: Measuring the company's ability to meet interest obligation
- Period of Analysis: A five-year timeline (2018–2022) to identify short- and long-term trends in MAP's financial structure and performance.

3.1.3 Its theoretical relevance will contribute to the financial understanding and exploring the impact of MAP's financial leverage and well-maintained debt management. Its practical relevance will provide insights and recommendations for MAP management to optimize their financial practices, mitigate risk and ensure their financial stability can be resilient towards upcoming economic challenges

3.2 Methodology

3.2.1 Data Collection:

Financial data, including total assets, total liabilities, long-term liabilities, shareholders' equity, earnings before tax (EBT), and interest expense, were collected for the period 2018–2022. These data points were extracted from MAP's official financial reports, ensuring accuracy and reliability. (Daryanto, W.M., 2024)

3.2.2 Data Analysis:

A ratio analysis was provided in the form of a report including trends, results, Balance sheet, income statement. The analysis involved comparing year-on-year changes to uncover trends, anomalies, and patterns.

Trend Analysis: Each financial ratio was analyzed over the five years to detect significant shifts in MAP's financial structure and performance.

Risk Assessment: The implications of high leverage, as indicated by the debt-to-equity ratio, were evaluated by assessing the correlation to the impact on operational efficiency. Risk exposure was analyzed through changes in interest coverage and the proportion of long-term liabilities to total capital.

4. RESULT AND DISCUSSION

Test of Financial Condition

20 Financial leverage ratio		2022	2021	2020	2019	2018
Total assets / Shareholders' equity	x	2,16	2,35	2,68	1,89	2,08
Total assets		20.968.046	16.767.977	17.647.145	13.937.115	12.632.671
Shareholders' equity		9.727.620	7.149.723	6.573.597	7.370.545	6.062.186

21 Debt/equity ratio		2022	2021	2020	2019	2018
Total liabilities / Shareholders' equity	%	115,55	134,53	168,45	89,09	108,38
Total liabilities		11.240.426	9.618.254	11.073.548	6.566.570	6.570.485
Shareholders' equity		9.727.620	7.149.723	6.573.597	7.370.545	6.062.186

22 Debt/capitalization		2022	2021	2020	2019	2018
Long-term liabilities / Long-term liabilities + Shareholders' equity	%	27,43	29,26	36,19	10,81	15,96
Long-term liabilities		3.676.545	2.956.756	3.728.713	892.985	1.151.601
Shareholders' equity		9.727.620	7.149.723	6.573.597	7.370.545	6.062.186

23 Times interest earned		2022	2021	2020	2019	2018
Pretax operating profit (EBT) + Interest / Interest	x	7,58	2,35	(0,31)	8,65	3,19
Earning before tax		3.172.623	675.331	(723.806)	1.625.502	1.173.417
Interest expense		481.990	499.863	552.208	212.422	536.113

Figure 1. (MAP Financial Ratio analysis report 2018-2022, (Daryanto, W.M., 2024)

4.1 Trend Analysis:

The Financial Leverage Ratio gradually increased from 2.08% (2018) to 2.16% (2022), indicating rising asset utilization funded by the company's equity (MAP, 2022) but also increased reliance on liabilities.

The Debt-to-Equity Ratio peaked at 168.45% in 2020, reflecting heightened risk exposure due to elevated liabilities and possible excess dependence on debt to cover these liabilities.

Debt-to-Capitalization Ratio fluctuated, with a significant decrease in 2019 to 10.81%, showing improved equity reliance during that period.

The Times Interest Earned ratio turned negative in 2020 (-0.31x), signaling operational challenges in meeting interest obligations, before recovering to 7.58% in 2022.

Results to the objectives of the research:

1. To examine the Patterns in capital structure and financial performance, MAP’s capital structure shows a fluctuating debt level, with a rise in Debt-to-Equity ratio in 2020 of 168.45%, which indicates high leverage, which then showed an improved financial management in 2022.

2. Impact of Debt-to-Equity Ratio, High debt-to-equity ratios in 2018 and 2020 increased financial risk and reduced operational effectiveness, while recovery in 2022 demonstrated improved profitability and resilience.

4. CONCLUSION AND RECOMMENDATIONS

As intended in the beginning of this study, the in-depth analysis of MAP's financial performance and capital structure from 2018 to 2022. The findings provide critical insights into the company's leverage, debt management, and operational efficiency.

Debt Utilization and Risk Exposure: The high debt-to-equity ratios observed in 2018 and 2021 (exceeding 130%) which highlight a period of elevated financial risk. However, the interpretation of the author in this case is the improvement in 2022 suggests a shift towards more balanced financial management. Operational Challenges: The negative Times Interest Earned (TIE) ratio in 2020 underscores a critical period when MAP faced difficulties in meeting its interest obligations. A recovery to 7.58x in 2022 demonstrates improved Profitability and debt management.

5.1 Limitations

Economic Context: The financial challenges observed, particularly in 2020, may have been influenced by external economic factors such as global market disruptions, which are not fully explored in this study.

5.2 Recommendations

Broaden the Funding Sources: Reduce reliance on debt financing by exploring alternative funding options, such as equity financing or retained earnings. In order to Strengthen Profitability, the company should focus on operational improvements and cost efficiency to enhance earnings before interest and tax, ensuring a stronger capacity to service debt.

Enhance Risk Management: Additional analysis into the usage of debt and manage financial ratios to maintain the stability between debt and equity, reducing exposure to financial distress during economic downturns.

This research concludes that while MAP has shown resilience in recovering from a period of high financial leverage and operational inefficiency, its capital structure requires continued optimization to ensure long-term sustainability

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CHAPTER 7

Financial Performance Analysis and Evaluation of PT United Tractors Indonesia TBK Before and During Covid – 19 Era for Years 2018 – 2022

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ABSTRACT

PT. United Tractors Indonesia Tbk is one of the largest companies in Indonesia engaged in the distribution of heavy equipment, mining, and energy. This company is a subsidiary of PT. Astra International Tbk is one of the largest conglomerates in Indonesia. This makes PT. Tractor Indonesia Tbk is dominant and has a wide distribution network in the Indonesian heavy equipment market. However, in the Covid 19 Pandemic Era, PT. United Tractors Tbk, faces various challenges during the COVID-19 pandemic era. This study explores the impact of the COVID-19 pandemic on the company's financial ratios, focusing on the analysis of profitability, liquidity, and solvency performance. Through a financial ratio analysis approach, this study identifies how changes in market conditions and operational challenges affect net profit margins, return on assets (ROA), and debt-to-equity ratios (DER) during the crisis period. The type of data used in this study is qualitative data derived from financial report data for the period 2018 to 2022. The results of the analysis show that the company faces significant fluctuations in these ratios. There was a decline in net profit margin and return on assets (ROA) in 2020, reflecting a decline in revenue due to reduced demand in the construction and mining sectors. However, in 2021 and 2022, the company managed to recover its net profit margin thanks to efficiency strategies and recovery in market demand.

The debt-to-equity ratio (DER) remained stable during this period, indicating that the company was able to manage debt well despite challenging conditions. This reflects a conservative approach to financial management and liquidity maintenance, reflecting the challenges faced and the adaptation strategies implemented to maintain stable economic performance.

Keywords: Financial Ratios, Profitability Performance, Net Profit Margin, Return on Assets (ROA), Debt to Equity Ratio.

1. INTRODUCTION

PT United Tractors Tbk is one of the leading companies in Indonesia, operating in heavy equipment distribution, energy solutions, and mining services. As part of the Astra Group, PT United Tractors Tbk has significantly driven the growth of the industrial, infrastructure, and natural resources industries in Indonesia.

The COVID-19 pandemic that hit in early 2020 had a very significant impact on the global and national economy. Social trading policies, decreased demand, and disruptions in supply chains have put enormous pressure on companies' operational and financial activities. This situation affects various aspects of PT United Tractors Tbk's business, especially in terms of selling heavy equipment, providing mining services, and energy management. This condition requires the company to adapt and review its business strategy to maintain stability and growth amidst a situation full of uncertainty, and to remain viable and competitive amidst the changes that occur.

This research aims to analyze the impact of the COVID-19 pandemic on the financial performance of PT United Tractors Tbk, with a focus on analyzing the company's profitability, liquidity, and solvency. Through financial ratio analysis, this research evaluates changes in net profit margin, return on assets (ROA), and debt-to-equity ratio (DER). The type of data used in this research is qualitative data originating from financial report data for the period 2018 to 2022. It is hoped that it can provide a clearer picture of the impact of the pandemic on company performance as well as the strategies the company has taken to face challenges and the extent to which PT. United Tractors can manage financial risks in situations full of uncertainty.

2. LITERATURE REVIEW

2.1 Digital Business

The development of information and communication technology has driven digital transformation in various business sectors. Digital business is the use of digital technology to create new business models or change business processes to increase enterprises' effectiveness and competitiveness (Laudon & Traver, 2021). According to Wirtz (2019), digital transformation includes not only the application of new technology but also changes in organizational culture and approach towards consumers. This would allow businesses to offer more responsive, innovative services in tune with dynamic market needs.

In Indonesia, digital adoption has increased rapidly in recent years, driven by developments in e-commerce, fintech, and digital banking (Budiman et al., 2020). This condition has been further strengthened by the COVID-19 pandemic, which has accelerated the transition to a digital economy as an effort to adapt to social changes and changes in consumer preferences. In this context, digital business is a key factor for company sustainability in facing economic disruption triggered by the pandemic.

2.2 Digital Business Transformation from PT United Tractors Tbk

PT United Tractors Tbk, as one of the largest heavy equipment provider companies in Indonesia, is also encouraged to carry out digital transformation to face the challenges of the modern era. According to PT United Tractors' annual report (2022), the company has started digitizing several aspects of its business, including operations, supply chain management, and customer service. This transformation includes the application of technologies such as IoT (Internet of Things) and Big Data to integrate machine performance and perform more efficient predictive maintenance.

The COVID-19 pandemic significantly impacted the operational level of PT United Tractors and urged the company to accelerate the digitalization process for business sustainability. Based on the research by Wijaya and Nugroho (2021), PT United Tractors digital strategy includes the development of an e-commerce platform to sell spare parts online and implementing digital customer service to reach consumers more effectively during the pandemic. Through digitalization, PT United Tractors can maximize operational continuity and efficiency while sustaining company performance though there are various external challenges.

This literature suggests that this digital transformation by PT United Tractors is not only for improving performance but also a response to the changed market dynamics brought about by the pandemic. Previous studies related to the role of digital transformation in enterprise survival within highly competitive business environtments and as the main strategic long-run element of PT United Tractors.

3. RESEARCH METHODS

This research uses a qualitative approach to explore the impact of the COVID-19 pandemic on the performance of PT United Tractors Tbk. Is on understanding how companies face financial and operational challenges during the pandemic and as the adaptation strategies carried out to maintain company stability. A qualitative approach was chosen to provide an in-depth understanding by interpreting data and information from various related sources.

3.1 Research Question

1. How has the profitability performance changed in PT United Tractors Tbk before and during the COVID-19 pandemic?
2. Has the company's liquidity ratio changed significantly during the pandemic period?
3. How has the pandemic affected the capital structure of PT United Tractors Tbk, especially concerning the solvency ratio or debt-to-equity ratio?
4. What does PT United Tractors Tbk do to alleviate the impact of the pandemic on the company's financial performance?

3.2 Research Framework

The study will dwell on crisis management and strategic adaptation of companies in times of uncertainty, such as in the COVID-19 pandemic. Crisis management theory supports the idea that when a company faces a crisis, strategic and structural adjustments are needed to sustain operations and finance (Burnett, 1998). This study will employ a strategic adaptation framework for policy evaluation, operational innovation, and risk management in response to crises (Ulmer, Sellnow, & Seeger, 2011). The research study will involve PT United Tractors Tbk's responses to the pandemic crisis in three major aspects, namely: financial structure, policy, and adaptation strategy. These three aspects are critical components that show whether a company is capable of navigating challenges during a crisis.

3.3 Types and Sources of Data

a. Data Type: Research uses qualitative secondary data in the form of numbers which are analyzed descriptively.
b. Data Source: Data obtained from the financial reports of PT United Tractors Tbk. the 2018–2022 period that has been published.
c. The financial report contains financial data used to calculate financial ratios, namely Net Profit Margin (NPM), Return on Assets (ROA), and Debt to Equity Ratio (DER).

3.4 Data Collection Process

a. The financial data in this research were compiled from the annual financial reports of PT United Tractors Tbk. accessed through the official annual report of the company or other credible public sources.
b. The data includes net income, net profit, total assets, total debt, and total equity required for computing the financial ratios under study.

3.5 Data Analysis Techniques

a. Financial Ratio Analysis: After gathering the financial data, the researcher computes three important financial ratios
b. Net Profit Margin (NPM): Measures the percentage of net profit from total revenue, which indicates a company's profitability.
c. Return on Assets (ROA): Measures how efficient the company is in generating profits from the assets it owns.
d. Debt to Equity Ratio (DER): Measures the proportion between total debt and equity to evaluate a company's capital structure.

3.6 Relevance of Research Questions to Theory and Practice

a. Theoretical Relevance:

- This question is relevant to finance and risk management theory as it is focused on the health of the firm from the angle of financial performance brought about by the COVID-19 pandemic. In finance theory, financial ratios such as Net Profit Margin, Return on Assets, and Debt to Equity Ratio indicate the profitability, efficiency, and capital structure of the firm, respectively, and indicate the financial health of the company.
- Companies are also very prone to external threats and risks, according to the risk management theory perspective, which may influence the economic performance in finance and operation. For instance, the COVID-19 pandemic is a huge external risk event that has ravaged almost all sectors of the economy. Hence, this current study may add to the resultant literature by evaluating the implication of the global crisis on corporate finance and risk management at the company level.
- This study is also applicable if analyzed from the economic theory because the pandemic impacts macro factors such as demand and supply, which have an influence on the mining and heavy equipment industry where PT United Tractors conducts its operations..

b. Practical Relevance:

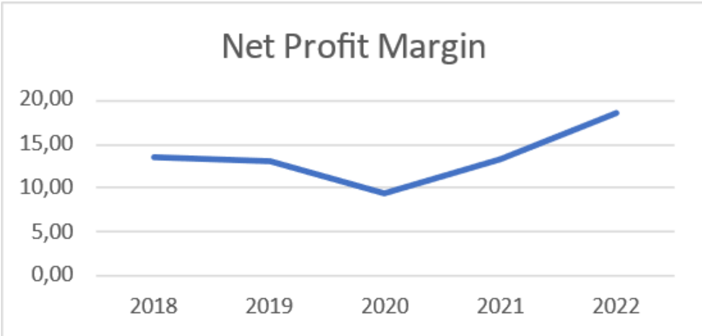
- For corporate practitioners, particularly in the mining and heavy equipment industries, this question can help answer how such a leading public company like PT United Tractors Tbk. performs under calamity conditions.
- Financial ratio analysis can portray the adaptation strategy of a company. It also helps stakeholders get an idea of significant changes in profitability, efficiency, and capital structure brought about by this pandemic. This research outcome will also benefit the management in decisions regarding whether or not to continue with the current financial strategy of the company or change it in years to come.
- The qualitative-descriptive approach fits this research because the researcher can delve into and describe in detail the current status of the company in question concerning its financial condition, and interpretation of change in financial ratio. By this approach, the researchers can go deep into the performance in that the company has gone through during the pandemic period and describe the patterns appearing more narratively. It also allows the presentation of the aspects that cannot be depicted using quantitative data, such as the context of the industry, conditions of the market, or other outside factors that cause changes in the financial ratios of a company.

A more open-ended approach would also allow flexibility in emphasizing elements that quantitative data alone could not, such as the context in which the industry operates, market conditions, and other external factors contributing to the change in the financial ratios of a company.

4. RESULTS AND DISCUSSION

The research will analyse how the COVID-19 pandemic has affected the financial ratios, profitability, liquidity, and solvency performance of PT United Tractors Tbk during the 2018-2022 period. It means that the outcome of the financial ratio analysis is described using some main indicators, that is, net profit margin, return on assets, and debt-to-equity ratio as a description condition towards the period of the challenge faced by the company during the pandemic and post-pandemic period. Apart from that, the discussion of the results of this study will also touch on a comparison with prior research to outline the general trends and strategies that have been implemented by companies to keep stability in their financial performance.

4.1 Analisis Net Profit Margin (NPM)



The graph above shows the trend in PT's NPM, United Tractor Tbk. between 2018 and 2022. In general, the NPM of the company fluctuated considerably, which had a steep plunge in 2020 due to the pandemic outbreak of Covid-19.

The pandemic has had a great impact on the global economic sector, where construction and mining sectors are PT's market base, as well as other sectors that consume heavy equipment. United Tractors Tbk. at the end of 2020 the mobility restriction and lockdown policies executed in many countries including Indonesia, declined drastically the demand for heavy equipment. This reduces the revenue generated by the company, consequently decreasing the NPM of the company. NPM declined considerably during 2020. NPM declined because of a reduction in profitability primarily as a result of reduced activity in the main sectors served by the company.

However, the company managed to adapt to such conditions through several strategies implemented since the end of 2020. Such strategies include operational cost efficiency and resource use optimization. In 2021, with demand starting to recover in the mining and construction sectors along with the relaxation of restrictions, the company's NPM showed a significant recovery. 2022 marked a more stable recovery, where the company not only managed to restore its profit margin to pre-pandemic levels but also strengthened its position with a sustainable adaptation strategy.

Case Development:

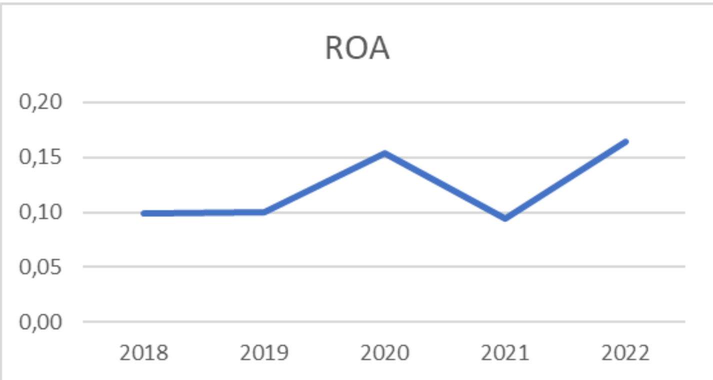
Meanwhile, a comparison with previous studies shows that this is the general trend for many companies in the heavy equipment distribution sector: to see profitability decline during a crisis. Yet PT. United Tractors Tbk showed faster performance in recovery compared to some of its competitors. This could be due to the company's approach towards financial stability, in the way they can manage operational costs without having to reduce customer service. While some enterprises have continued to show good profitability, in the same industries others fail to maintain their profitability because of a lack of sufficient financial flexibility to withstand a prolonged crisis.

Diversification strategies in energy and mining also support PT United Tractors Tbk's achievement in NPM recovery. Investment in new energy and expansion of the distribution network provides an opportunity for the company to hedge against possible swings in market demand for heavy equipment. It is mentioned that the company is not dependent solely on traditional demand from the construction and mining sectors but works on the development of a more diversified segment in the market.

The efficiency strategy was taken up by PT. United Tractors Tbk could also be one good example for other companies in the same line of business. The company would lessen costs but not compromise the quality of services by optimizing its production and distribution processes. Previous researches also show that companies that apply efficiency strategies during a crisis have better recovery rates compared to those who do not. This means that flexibility within operational management is highly significant in terms of sustaining profitability during an economic crisis.

With back-to-back recoveries in both 2021 and 2022, PT. United Tractors Tbk may be a good example of successful adaptation in the face of market uncertainty. Recovery in NPM, as it is realized, proves efficiency and diversification to be appropriate steps toward financial stability at the time of crisis.

4.2 Analysis of Return on Assets (ROA)



Above is the graph that tends to depict the ROA fluctuation of PT. United Tractors Tbk from 2018 until 2022, with the biggest decline in the year 2020. This low ROA that year reflects the negative effect of the COVID-19 pandemic on the efficiency of the company in making use of its assets to realize profits. This decline is in line with the decline in net profit, which was caused by declining demand in the construction and mining sectors during the pandemic.

In 2020, the decline in ROA was due to reduced activity in the main industries served by the company, namely the heavy equipment and mining industry, which experienced obstacles due to mobility restrictions and global economic uncertainty. These unfavourable market conditions hampered the company's ability to utilize its assets to generate optimal revenue.

However, in 2021 and 2022, PT. United Tractors Tbk showed a significant recovery in ROA. The company implemented various strategic steps, such as operational efficiency and more optimal asset management, to improve the efficiency of its asset use. By improving operational management and making adjustments according to recovering market conditions, the company managed to restore ROA to a better level. This recovery demonstrates the company's flexibility in facing challenges, where it can adapt to changing market conditions and adjust strategies to optimize asset performance.

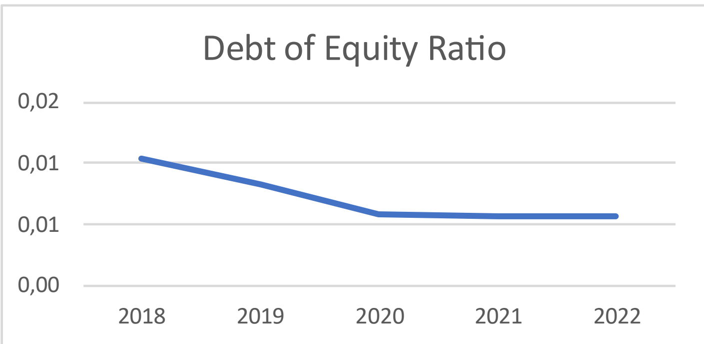
Case Development:

Compared with previous research, it is seen that most companies operating in the heavy equipment and distribution sector have problems with asset utilization efficiency when dealing with crises. On the contrary, PT. United Tractors Tbk presents a much more proactive posture to counteract the decline in ROA. It's not only about reduction in operational costs but also optimization and diversification in the use of assets by the company. This reflects the capability of adapting to dynamic situations of the market.

This asset optimization policy can be one of the indicators for various companies in the same business lines of PT United Tractors Tbk as part of the operations process to avoid being taken by surprise during crises. Flexibility in asset management has indeed been one of the variables that maintain efficiency and financial performance during turbulence. Other studies also indicate that those firms that succeed in sustaining or improving asset utilization efficiency during crisis periods recover sooner than those that do not optimize asset management.

The reason could be that business diversification successfully helped PT United Tractors Tbk restore ROA in 2021 and 2022. In essence, this would involve diversification not only in heavy equipment and mining products but also in new and renewable energy services initiated by the company. This was a step that would help PT. The recovery of United Tractors Tbk would eventually reduce the dependence on those sectors that are directly affected by the pandemic and further add to financial stability in performance. Backed by sufficient recovery of ROA, PT. United Tractors Tbk can prove that the adaptation of the operational strategy and optimization of asset utilization is an appropriate step that can be taken to overcome emerging challenges in a crisis. The rapid ROA recovery testifies to the resiliency of the company to maintain financial stability and optimize its assets during this difficult period.

4.3 Analysis Debt to Equity Ratio (DER)’



The graph above shows the Debt to the debt-to-equity ratio (DER) of PT. United Tractors Tbk is relatively stable during the study period, even though the company faced significant economic pressure during the COVID-19 pandemic. The stability of this DER reflects the company's ability to manage debt wisely and avoid increasing the debt-to-equity ratio, which is usually a major challenge for many companies in unstable economic conditions. In 2020, even though the company experienced a decline in revenue and profitability due to the pandemic, the DER of PT. United Tractors Tbk remained at a stable level. This shows the company's conservative approach to financial management, where they focus on maintaining a balance between debt and equity. Thus, the company can maintain liquidity and financial stability amidst uncertain market conditions.

Case Development:

This supports several previous studies that proved that companies in the heavy equipment sector with stable DER had a higher chance of survival than companies with high DER throughout the crisis period. In any situation of crisis, such as the COVID-19 pandemic, companies with high levels of debt often find it difficult to meet their financial obligations thereby heightening the chances of default and shaking investor confidence.

PT. United Tractors Tbk could consistently achieve a stable DER by adopting a prudent and conservative strategy in managing corporate debt. In general, the company tries to avoid overdependence on external funding sources but instead relies on equity and retained earnings as capital. This not only enables the company to stand financially strong but also makes it highly competitive in facing market uncertainty.

A conservative view on debt management might give PT United Tractors Tbk and other companies in similar industries a lesson to learn. In the industry of heavy equipment distributorship, financial stability is key because everything depends on business cycle fluctuation. "It follows from this that companies following a conservative debt management policy display greater stability of operation and minimize risks of market fluctuation on their financial performances," says one study.

With DER stability, PT. United Tractors Tbk also managed to keep the trust of investors and creditors who viewed DER stability as indicative of good risk management. This is important in terms of ease of access to sources of funds in the future, especially when the company intends to expand the business or when investment opportunities arise that demand additional capital. How successful PT. The fact that United Tractors Tbk can maintain a stable DER during the pandemic proves how resilient the company is in facing financial problems. It becomes proof that a conservative manner of managing debt can create long-term benefits for maintaining the company's financial stability, especially in unstable market conditions. In this way, the company can concentrate on business development without being distracted by liquidity problems or excessive financial burdens.

4.4 Discussion and Comparison with Previous Research

Compared to previous studies that have examined the impact of the global economic crisis on the heavy equipment distribution sector, this study confirms that a conservative cost efficiency and debt management strategy is an effective approach to minimizing the impact of the crisis. PT. United Tractors Tbk managed to maintain financial stability and showed recovery in 2021 and 2022, in line with the recovery trend in the heavy industry sector that was also observed in similar companies.

Overall, the results of this study indicate that PT. United Tractors Tbk was able to adapt and implement effective strategies to maintain financial performance during the pandemic period. The results of this study can also be a reference for other companies in managing economic challenges and maintaining financial stability during a crisis such as that faced by PT. United Tractors Tbk in the COVID19 Pandemic era.

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This study is a comprehensive analysis that examines the impact of the COVID-19 pandemic on the financial performance of PT United Tractors Tbk, especially in terms of profitability, liquidity, and solvency of the company. The findings show that the pandemic has had a significant impact on the company's financial performance, especially in 2020. Net profit margin (NPM) and return on assets (ROA) decreased as a result of declining demand in the construction and mining sectors, as well as mobility restrictions and supply chain disruptions. However, in 2021 and 2022, the company managed to restore profitability by implementing efficiency strategies and increasing market demand, reflecting strong adaptability in facing challenging market conditions.

Meanwhile, the debt-to-equity ratio (DER) remained stable throughout the study period, reflecting PT United Tractors Tbk's conservative approach to debt management. The stability of this DER shows that the company can maintain liquidity stability and manage financial risk well amid market uncertainty. These findings indicate that the company has solid financial resilience and an effective financial management strategy in facing crises.

5.2 Exceptions and Limitations

Some limitations to this study are that the data used is only the financial statements of PT. United Tractors Tbk for the period 2018 to 2022 and does not account for other external factors that may impact the performance of the company, such as a change in government polic6y or fluctuations in the global price of commodities. Moreover, such analysis is exclusively based on three key financial ratios, namely NPM, ROA, and DER; hence, for instance, other dimensions related to performance may refer to operational efficiency or market indicators. Such limitations may weaken the generalization of research outcomes and, at the same time, the relevance of findings, which apply to other firms belonging to different industries.

5.3 Theoretical and Practical Implications

The theoretical implications of this study are contributions to the literature on corporate financial management in crises, especially in the heavy equipment distribution and mining services sectors. The results of this study show the importance of adaptive strategies and conservative approaches in financial management as an effort to increase corporate resilience during a crisis. From a practical perspective, this study provides insight for corporate managers in similar sectors to consider efficiency strategies and debt management carefully, to be able to maintain the company's financial stability in uncertain market conditions.

Recommendations

Based on the findings of this study, here are some recommendations that can be given:

- **Product and Service Diversification**: PT United Tractors Tbk should further diversify its portfolio of products and services to develop it, not dependent on any one major sector. This would mean that the company shall be more resilient against unpredictable fluctuations in demand in some sectors, such as those related to construction or mining.

The company needs to keep improving in areas of cost and operational efficiencies as a way of sustaining profitability amidst the challenges that face the market. Moving digital and using new technologies can help the company reach higher efficiencies.

- **Strict Control of Financial Ratios:** Good maintenance of DER during the pandemic shows that the company can manage debt well. It is expected that PT United Tractors Tbk will maintain a conservative debt management policy and continue to pay attention to other financial ratios in order to maintain liquidity and profitability stability for the company.
- **Building Resilience of the Supply Chain:** As the pandemic affected the overall supply chain of the world, it indicates that the company should evaluate its supply chain and craft strategies based on the minimal dependence on a specific supplier or region prone to disruption.
- **Improvement of Resilience in Adaptation and Financial Resilience:** The company needs to work out strategies for adaptation by developing financial resilience to handle a future crisis situation.

By implementing these recommendations, PT United Tractors Tbk is expected to maintain steady financial performance and be prepared for possible market challenges in the future.

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CHAPTER 8

Measurement and Analysis for Financial Performance PT Sumber Alfaria Trijaya TBK (Alfamart) Indonesia Period 2018-2022

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ABSTRACT

The retail industry in Indonesia continues to grow from year to year and has intense competition with each other. In addition, the change in people's behavior from offline to online shopping systems affects the financial performance of this industry. The object of this study is PT Sumber Alfaria Trijaya Tbk as one of the retail industries that has intense business competition with other retail and online shop industries. The purpose of this study is to determine the financial performance of PT Sumber Alfaria Trijaya Tbk in 2018-2022 through profitability and solvency ratios due the pre and post covid 19 pandemic affects the financial performance of retail companies around the world including Indonesia. The research method used in this study is a descriptive financial ratio with a quantitative approach, using secondary data, namely the company's Financial Statements for 2018-2022.
Keywords: Financial Performance, Return on Asset (ROA), Profitability, Solvency Ratios

1. INTRODUCTION

Everyone today is facilitated with various choices in shopping for daily needs that can be done anywhere and anytime. The retail industry continues to grow and develop in Indonesia. In addition to creating jobs, this industry contributes greatly to the national economy. However, the Covid-19 pandemic has shaken the resilience of this industry. Not a few have closed their businesses and changed their business strategies. The rapid growth of the retail industry from year to year has made competition very competitive between one retail industry and another. Various methods and conveniences are offered to lure interest from buyers such as discounts, prices, promotions, fast delivery services, and ready to deliver groceries to the front of the house. The development of Indonesia's retail industry is experiencing rapid growth. There are many causes of the rapid development of Indonesia's retail industry. The first impetus was born from the emergence of pro-retail liberalization policies, among others manifested in the form of removing the retail business from the negative list for Foreign Investment (PMA). This was realized in the form of Presidential Decree No. 96/2000 on Business Fields that are Closed and Business Fields that are Open with Certain Requirements for Investment and Presidential Decree No. 118/2000 on Amendments to Presidential Decree No. 96/2000 on Business Fields that are Closed and Business Fields that are Open with Certain Requirements for Investment. These policies have led to the absence of ownership restrictions in the retail industry.

PT Sumber Alfaria Trijaya Tbk is one of the leading minimarket retail companies in Indonesia, where its business lines have spread across the islands of Java, Sumatra, Kalimantan, Sulawesi, Bali and Papua. In 1989 was the beginning of the establishment of Alfamart, with the start of the cigarette and consumer goods trading business by Djoko Susanto and his family, which later the majority of ownership was sold to PT HM Sampoerna in December 1989. In 1994 the ownership structure changed to 70% owned by PT HM Sampoerna Tbk and 30% owned by PT Sigmantara Alfindo (Djoko Susanto's family). PT Alfa Minimart Utama (AMU) was established on July 27, 1999, with shareholders PT Alfa Retailindo, Tbk by 51% and PT Lancar Distrindo by 49%. PT Alfa Minimart Utama (AMU) then opened Alfa Minimart on October 18, 1999 located on Beringin Raya street, Karawaci Tangerang. PT Sumber Alfaria Trijaya Tbk continues to add Alfamart minimarket outlets every year. Evidently in 2019 minimarket outlets have reached around 14,300 store outlets operating in almost all parts of Indonesia. The emergence of the Covid-19 pandemic has a significant impact on economic growth in Indonesia which has resulted in public companies experiencing Financial Distress where companies in all sectors will experience changes in financial performance before and after the Covid-19 pandemic so that it can affect company activities.

The purpose of this study is to determine the financial performance of PT Sumber Alfaria Trijaya Tbk in 2018-2022 through profitability and solvency ratios due to the pre and post covid 19 pandemic affecting the financial performance of retail companies around the world including Indonesia.

2. LITERATURE REVIEW

Retail Industry

Retail is an important link in the distribution process of goods and is the last link in a distribution process. Through retail, a product can meet directly with its users. The retail industry here is defined as an industry that sells products and services that have been added value to meet the needs of individuals, families, groups, or end users. The products sold are mostly the fulfillment of household needs including the nine basic necessities.

Financial Performance

Financial performance is a description of the company's financial condition analyzed by financial analysis so that the company can identify failures and successes in a certain period (Hanafi & Halim, 2018). Financial performance can be measured using financial ratios. Indicators include liquidity, solvency, profitability, activity and market ratios. The ratio can then provide information related to changes in the company's financial performance, both positive and negative changes.

Financial Ratio Analysis

According to Cashmere (2010) financial statement analysis is one way to determine the company's performance in one period. Before doing the analysis, it is very necessary to understand the things related to financial statements.

3. METHODOLOGY

According to Hermawan & Amirullah (2016), research types can be divided into two, namely exploratory/exploratory research and conclusive research where conclusive research can be further divided into descriptive/descriptive research (explaining characteristics) and causal/causal research (looking for causal relationships). In this study, the type of research used is descriptive research, where the purpose of this study is to determine / observe the financial performance of PT Sumber Alfaria Trijaya Tbk. Population is a generalization area that includes: subjects or objects that have certain qualities and also various characteristics / characteristics set by researchers for learning and then concluded (Sugiyono, 2013). The population used to analyze this financial report is the entire financial report of PT Sumber Alfaria Trijaya Tbk in 2018-2022.

This study uses secondary data sources obtained from the annual financial statements of PT Sumber Alfaria Trijaya Tbk in the last 5 years (2018-2022). The type of sample that will be used is purposive sampling because with this technique researchers can choose certain targets that are able to provide the desired information based on the criteria set by the researcher (Ferdinand, 2010). The samples in this study are data on the Financial Position Report, Profit and Loss, Notes to Financial Statements and Stock Returns for 5 years, namely from 2018-2022.

This study will use 5 years from 2018 to 2022 as a sample. The data used in the financial statements are in the form of Statements of Financial Position, Profit and Loss, Notes to Financial Statements and Stock Returns.

In this study, the approach chosen for data analysis is a quantitative and quantitative approach, where researchers calculate financial ratios (liquidity, solvency, profitability ratios) which are then explained in sentences to measure how the financial performance of PT Sumber Alfaria Trijaya Tbk. Then, profitability and solvency ratios will be compared with industry standards.

Table 1. Profitability and Solvency Ratio Industry Standards (Kashmir, 2017)

No	Financial Ratio	Industry Standards
1	Return On Equity (ROE)	> 40%
2	Return On Asset (ROA)	> 30%

3	Net Profit Margin (NPM)	> 20%
4	Debt to Equity Ratio (DER)	< 1%

Financial ratio industry standards refer to a collection of financial ratios commonly used in a particular industry to measure the financial performance of a company. Industry standards provide a consistent frame of reference for comparing a company's performance with competitors and other common companies. This allows companies to measure and evaluate their performance using the same measures, thereby identifying strengths and weaknesses and seeing where the company stands in the context of competitive industry competition.

4. Results and Discussion

The results of the analysis of the profitability and solvency ratios of PT Sumber Alfaria Trijaya during the period 2018 to 2021 are presented in the table below:

Table 2. Profitability and Solvency Ratio

Years	Profitability Ratio			Solvency Ratio
	ROE	ROA	NPM	DER
2018	11,11 %	3,02 %	1 %	2,68 %
2019	16,54 %	4,75 %	1,56 %	2,49 %
2020	14,25 %	4,19 %	1,44 %	2,4 %
2021	20,82 %	7,17 %	2,31 %	1,9 %
2022	25,35 %	9,46 %	3 %	1,68 %

Table 2 shows the results of the analysis of the financial ratios of profitability and solvency of PT Sumber Alfaria Trijaya during the period 2018 to 2022 using the company's financial statement data.

The profitability ratio uses three indicators, namely ROE, ROA and NPM. Return on Equity (ROE) measures the level of profit generated by the company in relation to shareholders' equity. Return on equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders' equity. Since shareholders' equity equals the company's assets minus its debts, ROE is considered the return on net assets. ROE is considered a measure of a company's profitability and how efficient the company is at generating profits. The higher the ROE, the more efficient the company's management is in generating revenue and growth from its equity financing.

AMRT's ROE increased from 11.11 (2018) to 25.35 (2022). The ROE in 2022 is even higher than the last 5-year average of 17.61%. In 2022, this means that every rupiah invested in the Company generates a net profit of 0.25 rupiah. This shows that the company has succeeded in improving the efficiency of using its own capital to generate higher profits. Then, Return on Assets (ROA) measures the company's efficiency in generating profits from its total assets. Return on assets (ROA) is net income divided by total assets. It is an efficiency measure of how well the company is using its assets. This metric is usually expressed as a percentage using the company's net income and average assets. A higher ROA means the company is more efficient and productive in managing its balance sheet to generate profits, while a lower ROA indicates room for improvement.

AMRT's Return on Assets increased throughout 2018 to 2022 from 3.02 to 9.46. This shows that the company is performing well and for every dollar invested as assets, the company earns 0.0946 rupiah in 2022. This increase shows that the company is able to increase the efficiency of asset use in generating profits.

Then, Net Profit Margin (NPM) measures the company's level of net profitability in relation to revenue. Net profit margin, or simply called net margin, measures how much net profit or profit is generated as a percentage of revenue. It is the ratio of net income to revenue for a company or business segment. Net profit margin is usually expressed as a percentage, but can also be represented as a decimal. Net profit margin describes how much of every dollar of revenue collected by a company translates into profit. AMRT provided good growth for 5 years from 2018 and reached its peak NPM in 2022. The three percent shown in the 2022 figure means for every rupiah generated by AMRT in sales, AMRT generates 0.03 rupiah as profit. This increase shows the company successfully improved its operational efficiency and controlled costs.

In the solvency ratio, the indicator used is DER. Debt to Equity Ratio (DER) measures the company's level of dependence on debt compared to its equity. PT Sumber Alfaria Trijaya experienced a decrease in DER from 2.68% in 2018 to 1.68% in 2022. This decrease shows that the company has reduced the proportion of its debt in the capital structure and increased its level of independence. The debt-to-equity (D/E) ratio is used to compare what the company has borrowed compared to what it has raised from private investors or shareholders. A D/E ratio greater than one means the company has more debt than equity.

AMRT's figures show that the average debt-to-equity ratio for the 5-year period was 2.23. This means that debt is higher than owner's equity. This should be a concern for the company as equity alone cannot cover the debt. Nonetheless, the decline in DER is a good trend. However, this is not enough as the Company should have a DER below 1.

Table 3. Comparison of ROE with Industry Standards

Year	ROE	Industry Standard	Financial Performance
2018	11,11%	Above 40%	Does not meet the standard
2019	16,54%	Above 40%	Does not meet the standard
2020	14,25%	Above 40%	Does not meet the standard
2021	20,82%	Above 40%	Does not meet the standard
2022	25,35%	Above 40%	Does not meet the standard

Based on the data in table 3, it can be seen that PT Sumber Alfaria Trijaya's ROE fluctuates from year to year, starting from 11.11% in 2018, increasing to 16.54% in 2019, and then falling to 14.25% in 2020, rising again to 20.82% in 2021 and rising again to 25.35% in 2022. However, during these five years, the company's ROE has not met the established industry standards because the ROE value is below the 40% limit.

From the results of the ROE ratio analysis, it can be concluded that PT Sumber Alfaria Trijaya has not been able to meet industry standards in terms of return on capital, even though the ROE value tends to increase. These results support the research of Shofwatun, Kosasih, and Megawati (2021); Lase, Telaumbanua, and Harefa (2022); Agustin (2020); Cholil (2020); and Permana, Halim, Nenti and Zein (2022). However, it contradicts the research of Damayanti (2021), and Martiana, Wagini, and Hidayah (2022).

Table 4. Comparison of ROA with Industry Standards

Year	ROA	Industry Standard	Financial Performance
2018	3,02%	Above 30%	Does not meet the standard
2019	4,75%	Above 30%	Does not meet the standard
2020	4,19%	Above 30%	Does not meet the standard
2021	7,17%	Above 30%	Does not meet the standard
2022	9,46%	Above 30%	Does not meet the standard

Based on the data in table 4, it can be seen that PT Sumber Alfaria Trijaya's ROA also fluctuates from year to year, starting from 3.02% in 2018, increasing to 4.75% in 2019, and then falling to 4.19% in 2020, rising again to 7.17% in 2021, then rising again to 9.46% in 2022. However, during those five years, the company's ROA was always below the set limit of 30%.

From the results of the ROA analysis, it can be concluded that PT Sumber Alfaria Trijaya has not been able to meet industry standards in terms of efficient use of assets to generate profits. Although the company's ROA has increased in the last few years, it still has not reached the established industry standards. These results support the research of Agustin (2020); Cholil (2020); Shofwatun, Kosasih, and Megawati (2021); Permana, Halim, Nenti, and Zein (2022). However, it contradicts the research of Damayanti (2021), Martiana, Wagini, and Hidayah (2022); Lase, Telaumbanua, and Harefa (2022).

Table 5. Comparison of NPM with Industry Standards

Year	NPM	Industry Standard	Financial Performance
2018	1%	Above 20%	Does not meet the standard
2019	1,56%	Above 20%	Does not meet the standard
2020	1,44%	Above 20%	Does not meet the standard
2021	2,31%	Above 20%	Does not meet the standard
2022	3%	Above 20%	Does not meet the standard

Based on the data in table 5, it can be seen that the company's NPM also fluctuates from year to year, starting from 1.00% in 2018, increasing to 1.56% in 2019, and then falling to 1.43% in 2020, rising again to 2.31% in 2021, then rising again to 3% in 2022. However, during these five years, the company's NPM has not been able to reach the set industry standard, which is above 20%.

From the results of the NPM ratio analysis, it can be concluded that the company has not been able to meet industry standards in terms of obtaining net profit from sales. Although the company's NPM has increased in recent years, it still has not reached the established industry standard. These results support the research of Shofwatun, Kosasih, and Megawati (2021); Lase, Telaumbanua, and Harefa (2022); Agustin (2020); Cholil (2020); and Permana, Halim, Nenti and Zein (2022). However, it contradicts the research of Damayanti (2021), and Martiana, Wagini, and Hidayah (2022).

Table 6. Comparison of DER with Industry Standards

Year	DER	Industry Standard	Financial Performance
2018	2,68%	Below 1%	Does not meet the standard
2019	2,49%	Below 1%	Does not meet the standard
2020	2,40%	Below 1%	Does not meet the standard
2021	1,90%	Below 1%	Does not meet the standard
2022	1,68%	Below 1%	Does not meet the standard

Based on the data in table 6, it can be seen that the DER of PT Sumber Alfaria Trijaya has decreased from year to year, starting from 2.68% in 2018, decreasing to 2.49% in 2019, then decreasing again to 2.40% in 2020, and decreasing again to 1.90% in 2021 and then decreasing again to 1.68% in 2022. However, during these five years, the company's DER has not been able to meet the established industry standard criteria, which is below 1%.

This research also analyzes and measures the company's financial performance with various parameters as follows:

a. Price/Earning Ratio

Tabel 7. Price/Earning Ratio

Ratio	Grafik	2018	2019	2020	2021	2022	Average
Price/Earning Ratio		59,71	32,85	31,30	26,20	38,54	37,72

The price-to-earnings ratio is the ratio for valuing a company that measures its current share price relative to its earnings per share (EPS). P/E ratios are used by investors and analysts to determine the relative value of a company's shares in an apples-to-apples comparison to others in the same sector. It can also be used to compare a company against its own historical record or to compare aggregate markets against one another or over time.

AMRT has average PER of 37.72 along 2018 to 2022. However, AMRT's PER decreased from 59.7 to 38.54. Which means that this is not favorable indicator for investors. AMRT also has very high PER compared to other company in the similar industry. Which means the stock is currently overpriced.

b. **Return on Invested Capital (ROIC**)

Tabel 8. Return on Invested Capital (ROIC)

Ratio	Grafik	2018	2019	2020	2021	2022	Average
Return on Invested Capital (ROIC)		6,06	10,52	10,23	17,86	21,77	13,28

Interpretation of ROIC is used to measure the return that an investment generates for those who have to provide capital. ROIC indicates how good company is at turning capital into profit. Both investors a company management uses this formula to measurehow well company is managed and how efficiently its capital is utilized. Investors are particularly interested in this ratio because it shows how successful management is at uses shareholders investments to generate additional revenues for the company.

AMRT maintained its ROIC well along 2018 to 2022. It is increasing from 6.06 to 21.77. Which is higher than 5 years average of 13.28. This means, for every rupiah that shareholders invested, the Company generated 0.21 rupiah in income (2022).

c. Profit Margin on Sales (GPM)

Tabel 9. Profit Margin on Sales (GPM)

Ratio	Grafik	2018	2019	2020	2021	2022	Average
Profit Margin on Sales (GPM)		19,79	19,94	20,33	20,70	20,66	20,28

The term gross profit margin refers to a financial metric that analysts use to assess a company's financial health. Gross profit margin is the profit after subtracting the cost of goods sold (COGS). Put simply, a company's gross profit margin is the money it makes after accounting for the cost of doing business. This metric is commonly expressed as a percentage of sales and may also be known as the gross margin ratio.
AMRT's figure in 2022 amounted 20.66 in GPM, means 20.66% of the Company's sales revenue covers its operating cost. The higher the value of GPM, the more efficient the Company.

d. Cash Realization

Tabel 10. Cash Realization

Ratio	Grafik	2018	2019	2020	2021	2022	Average
Cash Realization		6,58	3,96	3,88	2,73	2,39	3,91

Cash realization ratio is used to measure how close a company's net income is to being realized in cash. This ratio is also a good measure of earnings quality. It is calculated by dividing cash flow from operating activities by net income.
The figure more than one means that AMRT has suffice cash to pay for operating expenses. The higher the ratio, the better.

e. Asset Turnover

Tabel 11. Asset Turnover

Ratio	Grafik	2018	2019	2020	2021	2022	Average
Asset Turnover		3,01	3,04	2,92	3,10	3,15	3,05

The asset turnover ratio measures the value of a company's sales or revenues relative to the value of its assets. The asset turnover ratio can be used as an indicator of the efficiency with which a company is using its assets to generate revenue. The higher the asset turnover ratio, the more efficient a company is at generating revenue from its assets.
AMRT has 5 year average asset turnover ratio of 3.05. This means that for every 1 rupiah in assets generates 3 rupiah in sales.

f. Invested Capital Turnover

Tabel 11. Invested Capital Turnover

Ratio	Grafik	2018	2019	2020	2021	2022	Average
Invested Capital Turnover		6,05	6,74	7,12	7,72	7,26	6,98

Invested capital is the total amount of money raised by a company by issuing securities to equity shareholders and debt to bondholders, where the total debt and capital lease obligations are added to the amount of equity issued to investors. Companies must generate more in earnings than the cost to raise the capital provided by bondholders, shareholders, and other financing sources, or else the firm does not earn an economic profit.

AMRT's figure of Invested Capital turnover average for 5 years is 6.98. Which is quite amazing. In this particular ratio, the higher the ratio, means the Company is using its capital wisely.

g. **Equity Turnover (times)**

Tabel 12. Equity Turnover (times)

Ratio	Grafik	2018	2019	2020	2021	2022	Average
Equity Turnover (times)		11,10	10,60	9,93	9,01	8,45	9,82

Equity turnover is a financial ratio that measures a company's ability to generate revenue from its shareholder equity. It is calculated by dividing the company's net sales by its average equity. This ratio helps investors determine whether a company generates enough revenue to justify retaining its equity.

AMRT has quite high equity turnover ratio. for 5 years average it has 9.82 times. Hence, for every rupiah of shareholders equity generates 9.82 sales. The higher the value, the better.

5. Conclusions, Limitations, and Suggestions

Conclusion

Based on the results of the analysis of the financial performance of PT Sumber Alfaria Trijaya, Tbk in the period 2018-2022, it can be concluded that the increasing trend of changes in profitability ratios shows the company's improved performance in increasing operating profits. The declining solvency ratio indicates an improvement in financial performance that reduces future operational risk through a decrease in the use of debt. Although the trend of changes in the financial performance of PT Sumber Alfaria Trijaya, Tbk has increased, it is not enough to meet industry standards.

Limitations

This study has several limitations, namely the use of financial statement data for only four years from 2018 to 2022 so that it does not provide a more complete picture of long-term trends. Then, the study did not consider external factors that could affect PT Sumber Alfaria Trijaya's financial performance, such as regulatory changes, market conditions, or economic events. In addition, the analysis method focuses on profitability and solvency ratios.

Suggestions

Suggestions for future research are to expand the data to explain long-term trends, consider external factors that affect financial performance, and use analysis on other financial ratios to get a more comprehensive picture.

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CHAPTER 9

Profitability Ratio Analysis: Measure Profitability Based on Financial Statements PT. Siloam International Hospital Tbk. 2017 - 2023

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ABSTRACT

Private hospital as health service industry slightly different than goverment hospital, while private hospital should make a profit to keep the business run and did not get financial help from goverment. The focus of this research is PT. Siloam Hospital International Tbk, and the purpose of this study is to analize and evaluate the PT Siloam Hospital International Tbk,'s financial performence by using profitablity ratio analysis. In addition, this research hoped can become a reference for any health sector to manage the financial performence, also create strategy and future action to maximum profit but still remember about health norm. Profitability ratio composed of three ratios, such as Return on Assets, Return on Equity, and Net Profit Margin. The approach used in this study is descriptive quantitative with focus on numerical data. Type of data will be use is PT. Siloam Hospital Tbk,'s financial report yearly from 2017-2021. The financial report PT Siolam Internation Tbk 2017 – 2023 became the population and sample.

Key Words: Hospital, Profitablity Ratio, Financial Health Service

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1. INTRODUCTION

In the context of the health industry in Indonesia, PT Siloam International Hospitals Tbk is one of the main players that continues to grow. As part of the Lippo Group, this company has successfully operated dozens of health clinics and 41 hospitals throughout Indonesia until the end of 2023. However, like many other companies in the health sector, PT Siloam International Hospitals Tbk also faces challenges, especially in terms of financial performance.

According to estimates, Indonesia's health sector grew 14.9% from 2012 to 2018 to reach US$ 60.6 billion. The number of hospitals increased significantly, from 2,083 in 2012 to 2,820 in 2018 (Wibowo, 2018). From 193 industries in 2015 to 215 in 2017, the pharmaceutical industry sector expanded by 11.4%. From 215 industries in 2015 to 242 in 2017, the medical device sector expanded by 12.6% as well (Ministry of Health of Indonesia, 2018). Indonesia now has 80% more hospitals than it did eleven years ago (Listyani, 2018).

Financial ratio analysis is a method for estimating numbers in reports of finances by comparing them. This analysis aims to evaluate the effectiveness of the ogranization financial performance, including aspects such as liquidity, solvency, profitability, activity,and profit growth. (Jae K. Shim, 2000)

The main focus on profitability ratios in this research is based on the importance of ratios in assessing the organization’s efficiency in using its assets to gain profits. By analyzing the profitability ratio of PT Siloam International Hospitals Tbk for 2017-2023, this research aims to provide deeper insight into performance company finances, identifying areas requiring attention, and potential for future improvements.

This analysis is not only important for the management of PT Siloam International Hospitals Tbk evaluate and plan their financial strategies, but also for investors, analysts, and other stakeholders in the health industry in Indonesia. By understanding the performance trends and financials of these companies, we can get a broader picture of the dynamics and challenges faced by the health sector in Indonesia.

2. LITERATURE REVIEW

A company's success can be measured and assessed with the use of financial statements, which are the last step in the accounting process. Indonesian businesses, particularly those that become public, are required to release financial statements on a regular basis. (Mujari, 2019)

Financial ratio analysis is an important instrument for assessing a company's operational efficiency, profitability, and financial health (Cortés, 2022). Financial statements are the last step in accounting and are used to determine the situation of a financial firm. A financial statement consists of three parts: the owner's equity statement, income statement, and balance sheet. Financial ratios were examined using the balance sheet and income statement. Financial ratio analysis is one method that can be used to evaluate financial achievement. The three main categories of financial ratios are rentability, solvability, and liquidity. In addition to assessing profitability, ratio analysis assesses a company's capacity to create profits from sales and its ability to satisfy long-term obligations. (Noordiatmoko, 2023)

Financial statements are the last step in accounting and are used to determine the situation of a financial firm. The balance sheet, income statement, and owner's equity statement are the three components of a financial statement. The income statement and balance sheet were used to analyze financial ratios. One technique that can be used to assess financial accomplishment is financial ratio analysis. The three main categories of financial ratios are rentability, solvability, and liquidity. Net profit margin, return on equity, and return on assets may all be automatically calculated by the system, making it possible to employ profitability ratio analysis to assess how financial performance is doing. With the help of this program, users may determine financial performance to reduce corporate losses. (Darwis, 2022)

3. RESEARCH METHOD

The study uses a quantitative research design, which is a methodical scientific investigation of components, phenomena, and their interrelationships. Developing and applying mathematical models, theories, and/or hypotheses is the goal of quantitative research. PT Siloam Hospitals International Tbk served as the study's sample from 2017 to 2023. Documentation study methodologies were employed as data gathering techniques in this study. One way to acquire quantitative data is through documentation, which may be found on the official PT website. The financial reports of PT Siloam Tbk are the area of expertise for Siloam International Tbk, a financial report information firm listed on the Indonesian Stock Exchange.

Decisions are made using the quantitative descriptive data analysis approach, which is based on ratio computations to ascertain profitability levels. Financial ratios, which include the Return On Equity Ratio (ROE), Return On Asset Ratio (ROA), and Net Profit Margin Ratio (NPM), are used to examine data in the form of financial reports in order to determine the profitability of the organization. Ratio above can be calculated by:

$$\text{Net Profit Margin} = \frac{ProfitAfterTax}{Income} x\ 100\ \%$$

$$\text{Return on Equity} = \frac{ProfitAfterTax}{Equity} x\ 100\ \%$$

$$\text{Return on Asset} = \frac{ProfitAfterTax}{TotalAsset} x\ 100\ \%$$

1. Net Profit Margin (NPM):
   The tool that calculates the percentage of net profit generated from sales is called Net Profit Margin. This percentage demonstrates how effectively the business conducts its operations and keeps costs under control. When net profit is divided by total sales, NPM is calculated and then multiplied by one hundred percent. The higher the NPM, the better the company's capabilities to generate profits from sales. (Murphy, 2019)
2. Return on Equity (ROE):
   A ratio that shows profit that will be get by shareholders from their investment in the company is known as return on equity. ROE can be calculated by Divide the company's net profit by total shareholder equity, then multiply by 100 percent. This ratio is important for investors because it shows the company's performance to gain profits from funds. (Khoi, 2019)
3. Return on Assets (ROA):
   A ratio that describes how well management uses company assets to generate profits is called Return on Assets (ROA). To compute ROA, divide net profit by total assets, then multiply the result by 100%. This ratio shows how well companies can convert investments into assets to generate profits. The more higher the ROA, the more efficient management is in generating profits. (Gallo, 2016)

4. RESULT AND DISCUSSION

Utilize the secondary data from annual and financial report in PT. Siloam Hospital International Tbk official website to get information about data that is Assets, Equity, Revenue, and Profit After Tax will be used to calculate Profitablity Ratio.

Table 1. Financial Data of PT. Siloam Hospital International Tbk. (in Million)

Data	2017	2018	2019	2020	2021	2022	2023
Assets	7.596.268	7.694.942	7.741.782	8.427.782	9.304.325	9.665.602	10.982.062
Equity	6.313.514	6.316.675	5.987.681	6.018.371	6.523.942	7.051.519	8.047.636
Revenue	5.305.996	5.964.650	7.017.919	7.110.124	9.381.891	9.518.012	11.190.511
Profit After Tax	103.521	26.393	-332998	125.250	700.184	710.381	1.247.044

Source: Annual Report PT. Siloam Hospital International 2017 -2023

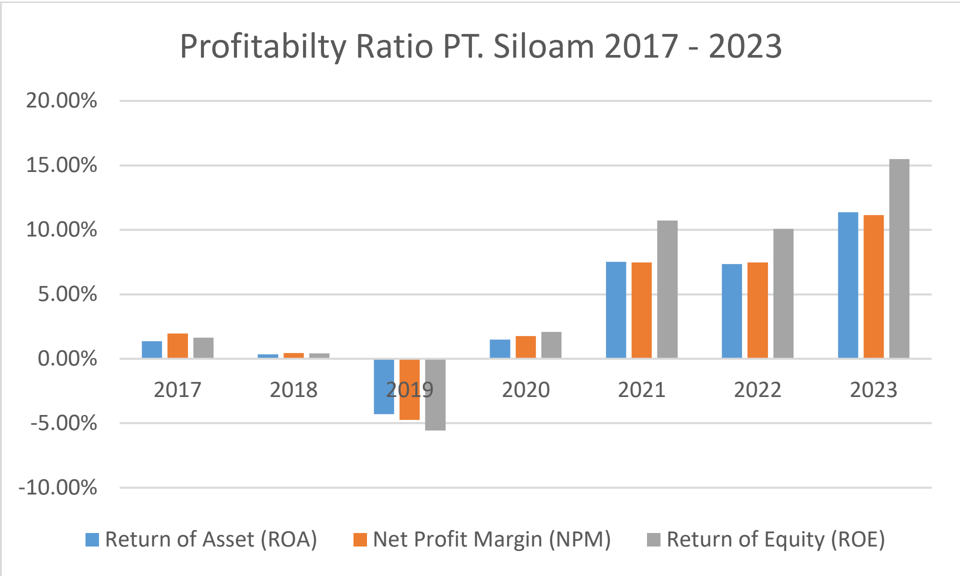

Figure 1. Profitability Ratio PT. Siloam Hospital International Tbk.

1. Net Profit Margin (NPM):

Table 2. Net Profit Margin Analysis (in Million)

Net Profit Margin (NPM)	2017	2018	2019	2020	2021	2022	2023
Profit After Tax	103.521	26.393	-332.998	125.250	700.184	710.381	1.247.044
Revenue	5.305.996	5.964.650	7.017.919	7.110.124	9.381.891	9.518.012	11.190.511
Net Profit Margin Ratio	**1,95%**	**0,44%**	**-4,74%**	**1,76%**	**7,46%**	**7,46%**	**11,14%**

Source: Personal preparation 2024

A great number of Net Profit Margin shows that: 1) the high number of Net Profit Margin indicating that the profit of the company are thick. 2) The high number of NPM's value indicates that the company could achieve operational efficiency. Businesses are able to optimize their net profit by cutting back on wasteful expenses. 3) Growing financial constraints like interest payments or operational expenses like staff salaries rise in tandem with rising raw material expectations. When the preceding situation occurs, the company's net profit did not drop much if the NPM indicates that the number gets thicker.

Discussion of PT Siloam International Hospital Tbk. ‘s Net Profit Margin (NPM). has increased from 2019 - 2020 by 6,5% and Incresing more in 2022-2023 by 3,68% It might be said that the business did well in that year in terms of producing net profits from sales or revenue. Based on the level of financial health companies, Horngren et al. (2011) in *Introduction to financial Accounting* said that companies with an NPM level above 5 - 10% (NPM > 5%) are general to be call a healthy company that capable to control the expense and gain the optimal profit, which means PT Siloam Hospitals International Tbk (SILO) had an NPM value above 5% for three years in a row in 2021–2023, indicating that NPM PT Siloam International Hospital Tbk is good in financial health.

2. Return on Equity (ROE):

Table 3. Return on Equity Analysis (in Million)

Return of Equity	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Profit After Tax	103.521	26.393	-332.998	125.250	700.184	710.381	1.247.044
Equity	6.313.514	6.316.675	5.987.681	6.018.371	6.523.942	7.051.519	8.047.636
Return of Equity (ROE) Ratio	**1,64%**	**0,42%**	**-5,56%**	**2,08%**	**10,73%**	**10,07%**	**15,50%**

Source: Personal preparation 2024

A high return on equity (ROE) shows how effectively a business uses its own funds to produce profits for its owners. Additionally, a rise in the ROE ratio from year to year indicates a rise in the company's net earnings. An increase in net profits may be seen as a sign that the company's worth has increased as well. This is because a company's share price typically rises in tandem with an increase in net profit.

Discussion of Return on Equity (ROE) PT Siloam Hospitals International Tbk showed a bounceback from negative ROE to positive in 2019-2020 by 7,64 % increase. After that, from 2020 until 2023 ROE averagely have the positive and increase trend. So it can be concluded on in 2021–2023, company's performance to generate or raise the net profit was great. If based on the healthty financial performance based on ROE, a company define to be healthy company if it generates more than 10–20%, but the ideal value is more than 15% because that value considered have good return to stakeholder said *Bringham and Houston (2013) in Fundamentals of Financial Management book*. PT Siloam Hospitals International Tbk (SILO) ROE only achieved more than 12% in 2023 so it can be said that this company was healthy.

3. Return on Assets (ROA):

Table 4. Return on Assets Analysis (in Million)

Return of Assets	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Profit After Tax	103.521	26.393	-332.998	125.250	700.184	710.381	1.247.044
Assets	7.596.268	7.694.942	7.741.782	8.427.782	9.304.325	9.665.602	10.982.062
Return of Asset (ROA) Ratio	**1,36%**	**0,34%**	**-4,30%**	**1,49%**	**7,53%**	**7,35%**	**11,36%**

Source: Personal preparation 2024

A high return on assets (ROA) means that the business has a great chance to develop the assets into profit, but if it uses all of its assets and doesn't make a profit, it will lose money and its growth will be hampered. The degree of return on all of the company's assets is referred to as return on assets, or ROA.
Discussion of Return on Assets (ROA) PT Siloam Hospitals International Tbk showed an a decrease in 2017-2019 until negative -4,30% and bounced back to positive again in 2019 to 5,79% different number, after that the trend was increase from 2020 -2023. (Gitman, 2012) in Principles of Managerial Finance have a statement that a company is healthy if the ROA value is above 5% (ROA > 5%) show the high ROA means the company is capable to producing the significant profit with the company's assets**.** PT Siloam Hospitals International Tbk's ROA from 2020 – 2023 was above 2%. So it can be concluded on in 2020 until 2023 the company's ability to generate net profit comes from of total assets also still great and if it is based on healthy financial performance Return On Assets, so it can be said that this company was healthy.
İn General, PT. Siloam International Hospital based on Table and alos the figure 1, Net Profit Margin (NPM), The NPM experienced substantial growth, reaching 11.14% in 2023. The company consistently maintained an NPM above the healthy threshold of 5% from 2021 to 2023, indicating effective cost management and operational efficiency. Return on Equity (ROE), demonstrated a strong recovery from a negative value in 2019 to 15.50% in 2023. This performance highlights the company's improved ability to utilize shareholder equity to generate profits. According to financial benchmarks, an ROE above 15% is ideal, making 2023 a standout year for PT Siloam Hospitals. Return on Assets (ROA) improved from a low of -4.30% in 2019 to 11.36% in 2023, exceeding the healthy benchmark of 5%. This indicates the company's increasing efficiency in utilizing its assets to generate profit.

5. CONCLUSION AND RECOMMENDATIONS

Based on the result and discussion about profitability ratios for PT Siloam Hospitals International Tbk from 2017 to 2023, the company's financial health and performance showed significant improvements in recent years:

In summary, PT Siloam Hospitals International Tbk has shown a remarkable turnaround from its weaker financial performance in 2019 to healthy profitability ratios in 2021–2023. The company's ability to maintain high NPM, ROE, and ROA levels demonstrates its robust financial health and effective operational strategies

The recommendation based on finding and analysis is to maintain Cost Efficiency, continue focusing on cost control and operational efficiency to sustain the current profitability trends, especially as healthcare costs and operational expenses may rise. Expand Revenue Streams, explore new revenue opportunities, such as offering specialized healthcare services or expanding hospital networks to underserved areas, to enhance revenue growth further. Optimize Asset Utilization, leverage existing assets to generate additional revenue through partnerships, innovative healthcare services, or digital health technologies to maintain high ROA. Strengthen Equity Utilization, with ROE exceeding 15% in 2023, the company should consider reinvesting profits into growth-oriented projects or shareholder value initiatives, such as dividends or share buybacks. Monitor Industry Trends, stay adaptive to healthcare industry trends, including digital health transformation and medical advancements, to remain competitive and meet patient needs effectively.

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CHAPTER 10

Financial Performance Analysis of PT. Salim Ivomas Pratama, Tbk During Periode Of 2018- 2022

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ABSTRACT

PT. Salim Ivomas Pratama Tbk is one of the largest palm oil industries in Indonesia. Like any other company, healthy financial is one of the assessments the goal of company management, The aim of this study is to find out the financial performance of PT. Salim Ivomas Pratama Tbk. This study is to analyze debt to equity, return on investment and return on equity. And to determine the financial performance of PT. Salim Ivomas Pratama Tbk. This study is using a descriptive financial ratio with quantitative approach with secondary data company financial performance 2018 to 2022 when company faced pre and past Covid 19 pandemic. By using financial ratio, these studies can identify and explain company performance using financial ratios.

Keywords: Total Assets Turn Over, Return on Investment, Debt to Equity and Return on Equity

1. INTRODUCTION

A. Company Background

The palm oil industry has a strategic role, including the largest foreign exchange earner. Palm oil production in Indonesia, in 2022 two of its five island in Indonesia accounted for more than two-thirds of palm oil production in Indonesia. In a large number palm oil producer and is dominated by Indonesia followed with Malaysia, Thailand and Columbia, these country in total produce around 85 – 90% of total world palm oil production. In Indonesia palm oil industry and plantation is divided into three type of ownership: government owned, basis nucleus and, independent. İndonesia who produce of it in 2023 83% of total World palm oil production, palm oil in Indonesia is absorbed by the food industry, especially the palm cooking oil & non-food industries such as beauty products and as bio fuel, the usage of the palm oil is great for cooking industry and biodiesel. As a renewable energy, biodiesel in Indonesia was initially a response to rising palm oil prices. Biodiesel program caused a trade balance deficit due CPO exports (Crude Palm Oil) and increase in imports (Faisal Basri, 2020). The following table it show of profit loss of PT. Salim Ivomas Pratama, Tbk.

Table 1.1 Sales and Profit and loss of PT. Salim Ivomas Pratama, Tbk

In million Rupiah (unless otherwise stated)	2022	2021*	2020*	2019	2018
Sales	17.794.246	19.658.529	14.474.700	13.650.388	14.059.450
Gross Profit	4.649.207	5.150.931	3.004.547	2.085.677	2.327.174
Operating Profit	2.920.384	2.920.834	1.859.406	639.118	973.264
EBITDA[1]	4.683.961	4.477.572	3.240.753	1.904.075	2.264.779
Profit/(Loss) for the Year	1.509.605	1.340.395	408.478	(642.202)	(178.067)
Profit/(Loss) for the Year Attributable to Owners of the Parent	1.198.367	990.401	289.628	(546.148)	(76.566)
Profit/(Loss) for the Year Attributable to Non-controlling Interests	311.238	349.994	118.850	(96.054)	(101.501)
Total Comprehensive Income for the Year	1.657.479	1.395.825	818.166	(550.885)	(8.773)

Align with increase of production palm oil in Indonesia, many businesses are established palm oil production companies as producers of palm oil in Indonesia. In the economic aspect, Palm oil industries increase job opportunities and exchange trade market in Indonesia. Palm oil industries in Indonesia has earned $35 million US Dollars in foreign exchange or 52% higher than the export value from 2022, it safe Indonesia from deficiency. PT. Salim Ivomas Pratama Tbk. as a producer of cooking oil their main concern is planting oil palm plantation, palm nurseries, and marketing about palm oil and other related finished product (margarine & vegetable fat). PT. Salim Ivomas Pratama Tbk, has been IPO since 2011 and its listed in Indonesia Stock Exchange with the price of the stock Rp. 1,100/stocks.

B. Formulation of the problem

This study of the problem is "how is the effect financial performance in the based on the debt of ratio of debt of equity. Debt to assets, total assets turn over and return of investment" .

C. Research purpose

Based on the formulation of the problem above, the aim of this study is to find out "How is the company's financial performance Based on the using financial ratio namely debt to equity, return on investment and return on equity"

2. LITERATURE REVIEW

A. Theoretical basis

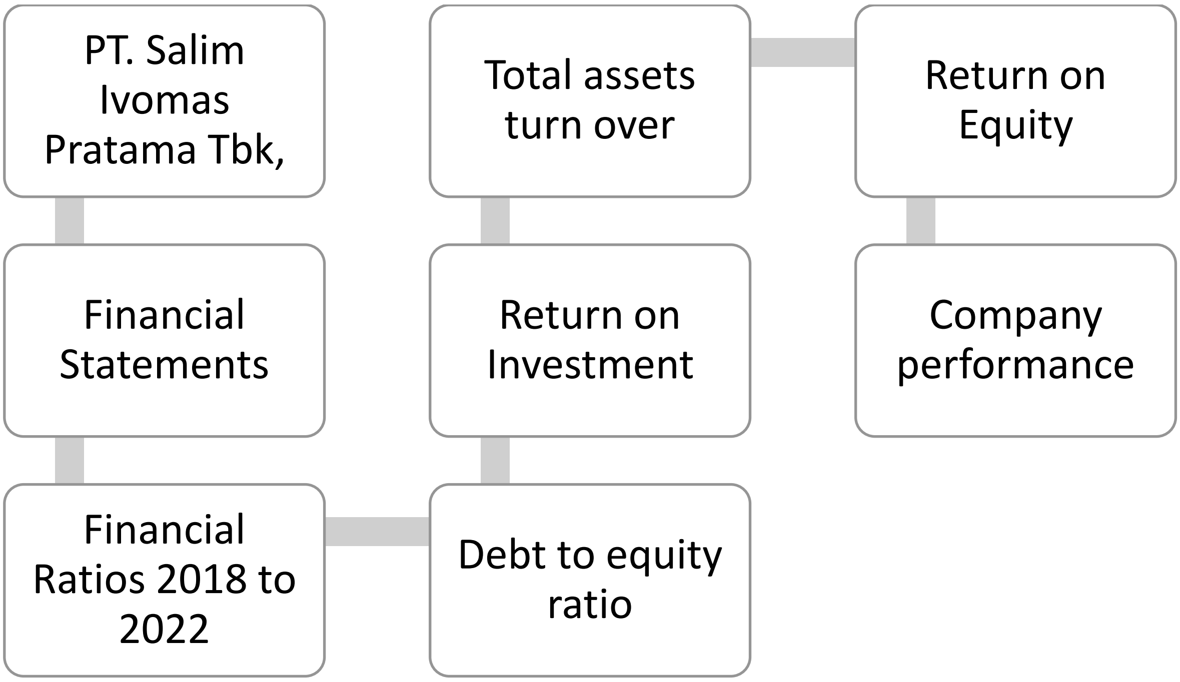
Financial ratio analysis is a tool used to evaluate company financial performance and used to appropriate the financial strategy (Monday, 2013). In this study, Financial statement analysis is for evaluating a company financial performance to produce information that useful for public, users and investors. Furthermore, the analysis of financial statements it can be concluded the activities by the company the company achieve maximum or not. İn this study, from the analysis of PT. Salim Ivomas Pratama Tbk. financial statements can be a Picture for the company in the future, so the study of analysis of financial statements becomes a process that is needed in the future for the organization. Theres many study in Indonesia research using ratio analysis that has been done by several studies such as:

1. Anang Candra Wahyudi, the study is about measurement of financial performance of company that went public on Indonesia Stock Exchange for PT. Unilever Indonesia tbk for period 2006 to 2010. In this study the assessment of liquidity ratios using current ratio measure, it conclude that is good. When we see the to the cash ratio the valuation is which is not good enough. In the other hand, the solvency ratio for the category of the ratio of total to assets and debt to equity ratio. And from the assessment of profitability ratios obtained results for the profit margin ratio.
2. Azahra with analysis of financial statements to assess the financial performance of PT. Bumi resources, tbk for period 2018 to 2021. The results from that study is the liquidity ratio for the company current ratio and quick ratio is in good category. And the ratio of profitability to the ratio of net profit margin, return of assets, and return on equity obtained results that the company performance is quite good.

B. Conceptual framework

PT. Salim Ivomas Pratama, Tbk. Is one of the largest player for palm oil industry in Indonesia and the business are integrated and part of agribusiness group in Indonesia. When in daily operations there's a lot of activities should be recorded every day and with many activities, there will be many transaction process carried by the company. All those transaction will be recorded according to actual events and merge with one form of financial statements. Current financial statements need to be analyzed to find out the extent of company financial performance. The relationship between the profitability of a company with financial ratio it makes cash, working capital, and long term investment (Tryfondis & Lazardis, 2006).

Figure 2.1 financial statements flow

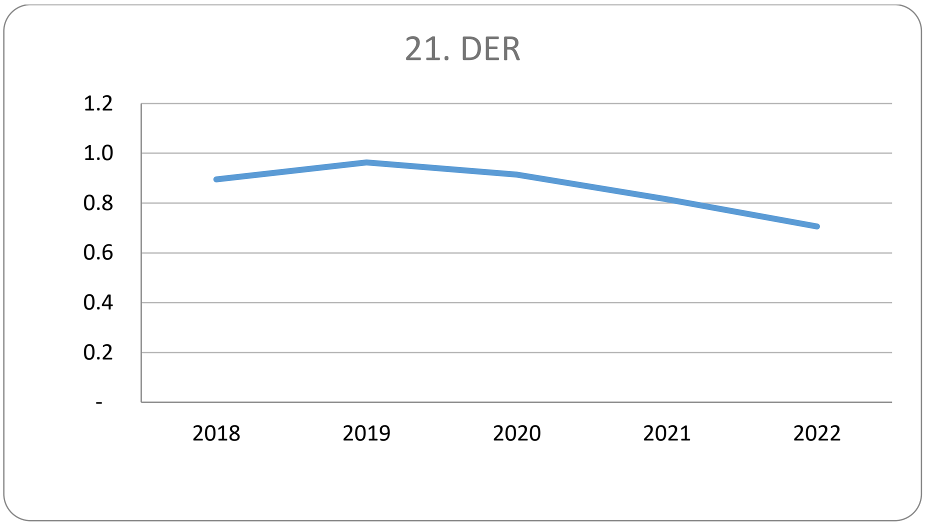


3. RESEARCH METHODS

This study uses a descriptive method is a method one way research by interpreting and discussing an object align with existing reality (Nazir, 2011). This study will clarify the financial performance using financial ratio. The research data is using company financial statements for 4 (Four) years, namely the period 2018 to 2022. By using financial ratio namely debt to equity, return on investment and return on equity.

1. **Debt Equity Ratio (DER)**
   Debt equity ratio namely ratio that compares between debt and capital owned. When the debt number is smaller is the better, the amount of the debt must not exceed the capital owned. From the figure below it seen that the DER (Debt Equity Ratio) is be able to control. The composition of Debt and capital well and can be categorized in a stable condition from 2018 to 2022.

Figure 3.1 Debt equity ratio SIMP 2018 to 2022



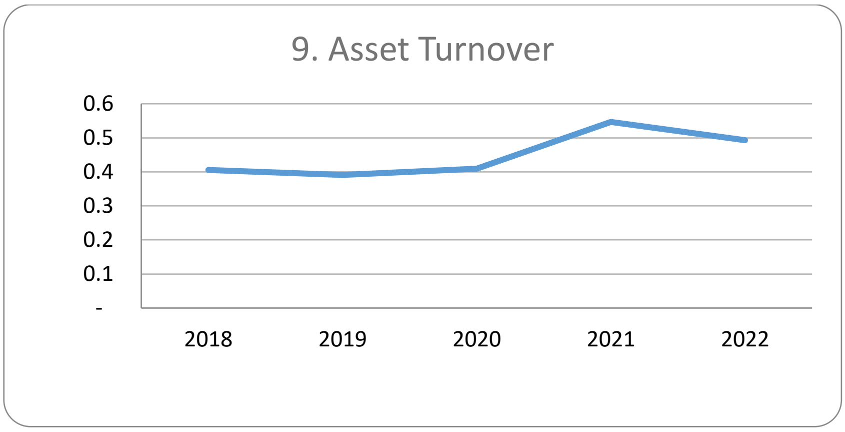
Name of ratio	2018	2019	2020	2021	2022
Debt to Equity ratio	0,90%	0,96%	0,91%	0,82%	0,71%

2. **Total assets turn over**

Total assets turn over it expresses the number of value assets (In this part of total assets turn over ratio is to rationally the number that might be a whole number into a decimal, the total assets turn over it shows many times the amount of merchandise inventory replaced or sold in a year. The high is ratio is the better at PT. Salim Ivomas Pratama Tbk, was able to handle sales of 0,41% times of total assets in 2018, amount in 0,39% times in 2019 of total assets, amount in 0,41% times in 2020 of total assets, amount in 0,55% times in 2021 of total assets, and amount in 0,49% times in 2022 of total assets.

From figure below, we can see that TATO fluctuation every year (2018 – 2022), but overall TATO at PT. Salim Ivomas Pratama Tbk, based on the graphic for PT. Salim Ivomas Pratama is still safe and can be handled

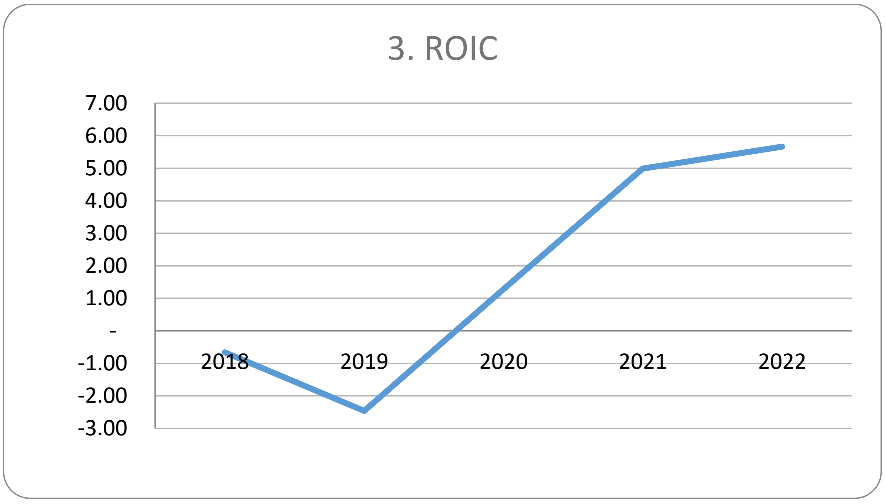
Figure 3.2 Total Assets turn over (TATO) SIMP 2018 to 2022



Name of ratio	2018	2019	2020	2021	2022
Total assets turnover	0,41%	0,39%	0,41%	0,55%	0,49%

3. Return On Investment (ROI)

Figure 3.3 Return on Investment SIMP 2018 to 2022



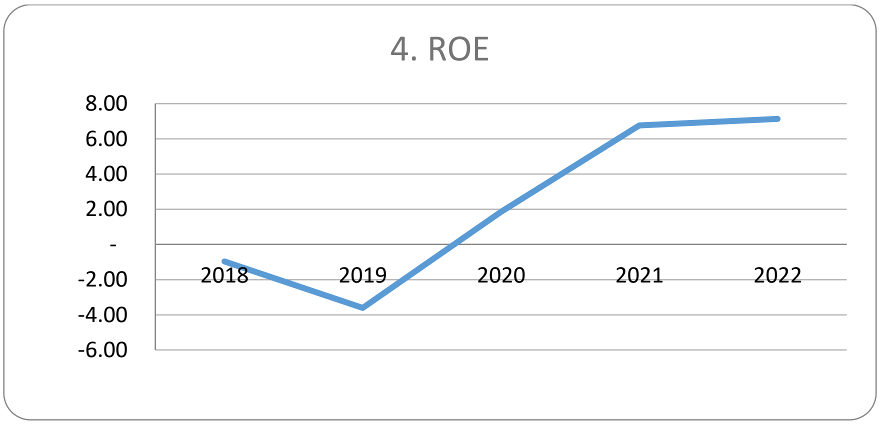
Name of ratio	2018	2019	2020	2021	2022
Return on Investment	-0,66%	-2,46%	1,28%	4,99%	5,66%

Return on investment is to measure the performance and used to evaluate the efficiency and profitability of an investment that company invest in. Out how far, the capital have been invested to generate profits. It can be seen that value of ROI in 2018 was (-0,66%) in 2019 was dropped to (-2,46%). In 2020 increased by 1,28%, in 2021increasing to 4,99% by 2022 For ROI PT. Salim Ivomas Pratama Tbk, rose again to the 5,66%. From the figure above shows the lowest value of ROI in 2019 and the highest value of ROI in 2022.

However, if it referes to the results of the analysis of the value of ROI and total assets. It can be said that PT. Salim Ivomas Pratama Tbk, is in the condition of utilizing financial resources for an assets for short-term and for long-term. The company is also in maximize the ratio between sales and operational costs. Based on the ROI graphic above for PT. Salim Ivomas Pratama Tbk, can be categorized as safe.

4. Return on Equity

Figure 4.4 Return on Equity SIMP 2018 to 2022



Name of ratio	2018	2019	2020	2021	2022
Return on Equity	-0,97%	-3,61%	1,84%	6,75%	7,13%

From figure above we can see that value of ROE in 2018 it was (-0,97%) when in 2019 it dropped to (-3,61%). In 2020 the value of ROE rose again, namely to 1,84% in 2021 the value of ROE increasing to the 6,75% and in 2022 ROE reach the highest number of the period, namely by 7,13%. From the figure above it shows the lowest value of ROE in 2019 and the highest value of ROE in 2022 according to the following ROE graphic from 2018 to 2022.

A. Definition of variables

Return on Equity	Return on Equity is to measuring the ability of invested capital to net profit.	$\frac{\text{Earning after interest \& Tax}}{\text{capital}}$
Return on Investment	Return on investment is a ratio to measure the assets to generate profits	$\frac{\text{Earning after interest}}{\text{Total assets}}$
Debt Equity Ratio	Debt to equity ratio is to measures amount of debt or funds from outside company	$\frac{\text{Amount of debt}}{\text{capital}}$ X 100%
Total Assets turn over	Total assets turn over is a ratio to measure the ability of capital invested in total assets	$\frac{\text{Net sales}}{\text{Total assets}}$

B. Population and sample

The population and sample in this study are from financial statement from PT. Salim Ivomas Pratama, Tbk. the sample periode taken is from 2018 to 2022.

C. Data collection technique

The author collect the data from yahoo finance for PT. Salim Ivomas Pratama, Tbk periode of 2018 to 2022 and from journals and other sources related to the study.

5. RESULT AND DISCUSSION

According to study by Marsel Pongoh (2013) who analysed financial statements to assess the performance of PT. Bumi Resources Tbk, the result is profitability ratio still in good condition. Similarly to research from Anang Chandra (2012) when the author analysing of financial statement to a financial performance of PT. Unilver Indonesia is able to demonstrate performance efficiency in optimizing the assets and capital to reach net profit. However, it should be noted for performance appraisals for financial performance for short-term and for long-term. When it for long-term and can be supported with another analytical methods. Where PT. Unilever Indonesia Tbk, can shows performance effective when optimizing assets and capital to generate net profits.

6. CONCLUSION AND RECOMMENDATIONS

Based on the result financial statements analysis based on the ratio of debt to equity, return on equity, return on assets, and return on investments. PT. Salim Ivomas Pratama Tbk, period of 2018 to 2022 it can be stated as follows:

1. Results for the analysis of financial ratio measured based on the debt to equity, during period 2018 to 2022 the category is safe. It shows that PT. Salim Ivomas Pratama Tbk, has good ability to fulfill the obligation for the assets owned
2. The results for analysis profitability ratios measured based on the ratio of return on investment and return on equity gravitate to decrease. However, the results for evaluating the ROI and ROE at PT. Salim Ivomas Pratama Tbk, is still safe category

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CHAPTER 11

The Healthiness Measurement of Financial Performance of PT Gudang Garam, Tbk Using Altman Z-score

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ABSTRACT

Cigarette industry in Indonesia, have tough challenges from their difficulties to expand the market size even though Indonesia has prevalent smoker in average 29,29% of smoking rate, which are highest among ASEAN country. The pressure from authority related to health awareness also increases the tension of the challenges. PT Gudang Garam, Tbk, is one of Indonesia's cigarettes companies, which also struggle to keep their competitive performance in the industry, the company experienced a notable fluctuation in its financials. In economic side, along with the Covid-19 pandemic ended the inflation on the year 2022 and 2023 also comes with significant number on 4.21 and 3.67 plus the excise tax always increase every year, together cause the increase of production cost of PT Gudang Garam Tbk. With this situation, company seek good opportunity in national infrastructure development with Indonesia Government, such as Airport Construction in Kediri City. The research aims to measure and analyze the financial health of PT Gudang Garam Tbk using Altman Z-score methodology. The analysis will use public data of the company from 2018 to 2023 period. Stakeholders and the public may get the insight from this study, to see the company’s management actions reflect the company financial situation.
Keywords: Financial Health, Cigarette, Altman Z-Score

INTRODUCTION

The cigarette industry is the backbone of the Indonesia's state revenue through excise and tax payment.

It is reflected in the Gross Domestic Product of 2022 from the manufacturer of tobacco product in Indonesia was around $20 billion and Indonesia is the second largest markets for cigarettes in the world with total market size at over $34B (Euromonitor, 2023).

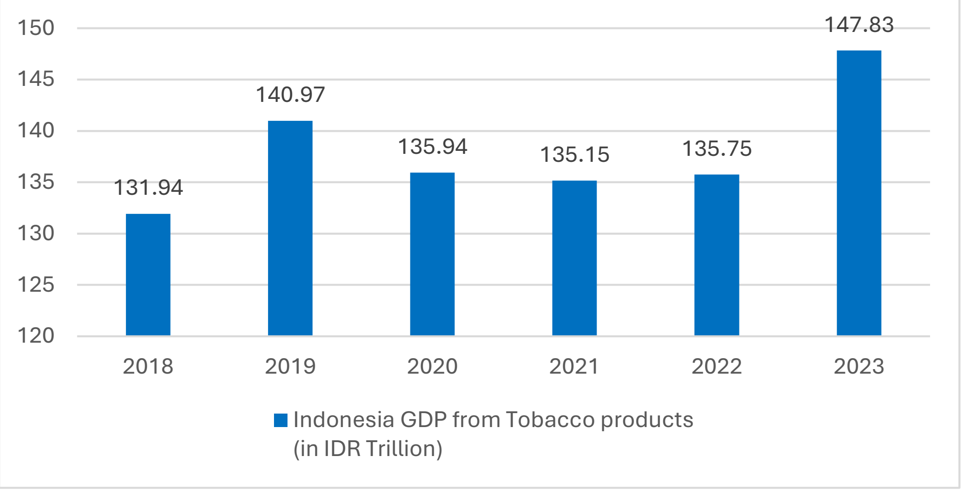

Figure 1: Cigarette Contribution Income to Indonesia (in IDR trillion Rupiah)
Source: Statista, 2023

Based on Figure 1, total contribution cigarette to states revenue increased about 12,08 IDR Trillion in 2023 mainly due to increase in government income from value added tax and tax income from workers. Apart from contributing to the state income, the cigarette industry also supports the economy through job creation from farmers, grinders to factory employees. According to data on Figure 2, from Central Bureau of Statistics (2023), the total workforce in micro and small scale tobacco processing industry is estimated to be around 1,2 million workers in 2023.

The number of workforces decreased by 9,8% compared to 2022.

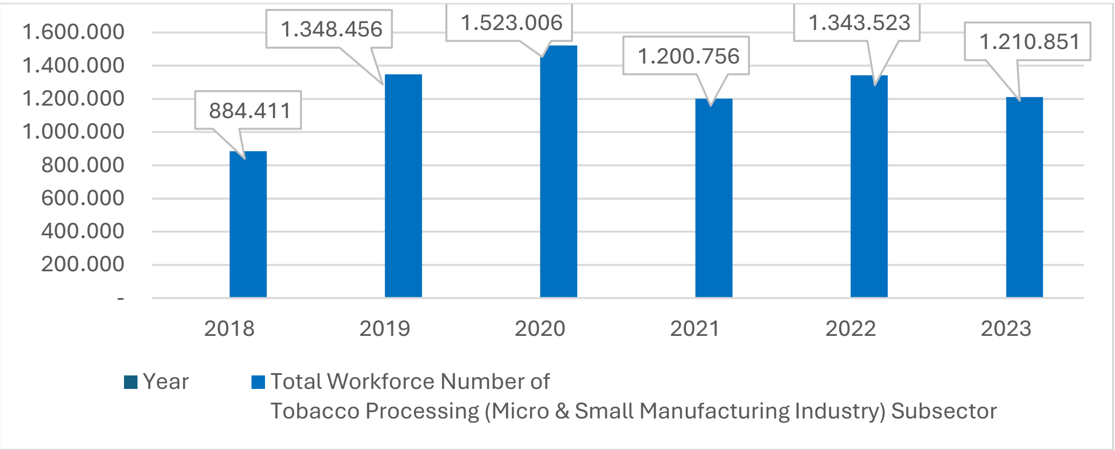

Figure 2: Total Workforce number in Processing Tobacco Industry (Micro & Small Manufacturing) in Indonesia
Source: Central Bureau of Statistics, 2023

Table 1: Total workforce comparison of Micro-Small with Medium-large Manufacturing in Tobacco Processing Industry subsector from 2018 – 2021

Year	2018		2019		2020		2021	
Micro-Small	884.411	75%	1.348.456	82%	1.523.006	84%	1.200.756	83%
Medium Large	290.871	25%	297.722	18%	287.889	16%	246.587	17%

Source: Central Bureau of Statistics, 2023

From table 1, the micro-small industry subsector gave the most workers number than medium-large industry.

Although cigarette contribute significant amount to state revenue, the Indonesian Minister of Finance set a consistent increase in excise tax rates with aiming to reduce the smoke prevalence of children aged 10 to 18 years and adult smokers. Indonesia ranks first in the world in terms of the prevalence of adult male smokers which has been recorded at 71,3% in 2022. The prevalence of smoking among children aged 10 to 18 years was also high i.e., at 9,04% in 2022. Therefore, the government is implementing the 2020-2024 National Medium-Term Development Plan (RPJMN) is targeting to bring down the prevalence of smoking in children to 8,7 percent by 2024 by supporting an increase in excise tax rate on tobacco products to boost the cigarette price index since it has the potential to reduce the public consumption of cigarettes.

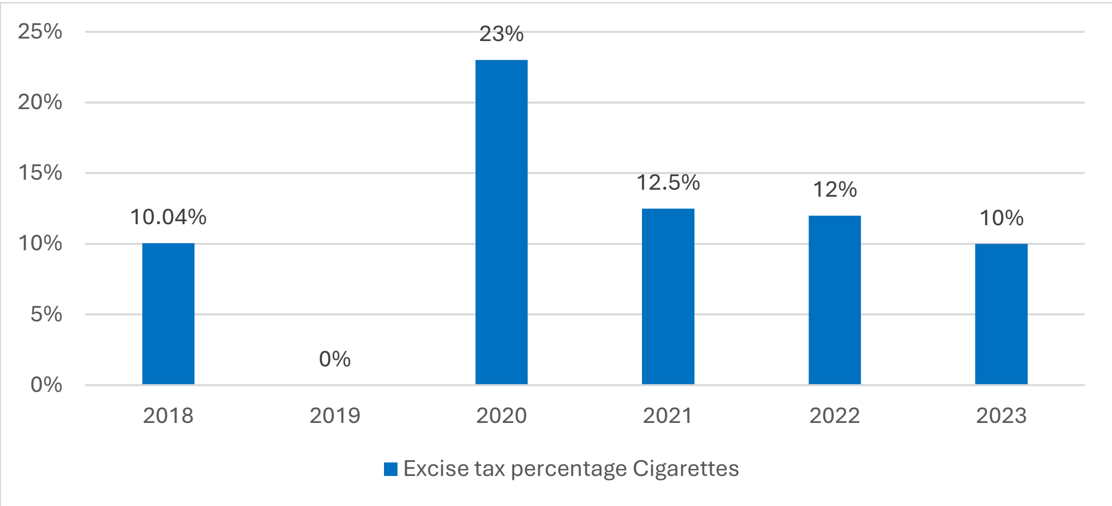

Figure 3: Historical Excise Tax Rate
Source: Ministry of Finance Department, 2023

In 2020, the tobacco industry faced an ironic predicament as the Covid-19 outbreak affected the purchasing power of low-income consumers. in 2020, the decision of cigarette excise 22.5% in 2020 marking the most significant increase in history. As illustrated in Figure 3, the Minister of Finance employed excise tax as a fiscal tool to regulate cigarette consumption by persistently raising the excise tax and thereby increasing retail prices.

PT Gudang Garam Tbk, the second-largest manufacturer in Indonesia, held nearly a quarter of the market share in 2023, following its closest rival, PT HM Sampoerna Tbk, which commanded 28% of the market. Following the Covid-19 pandemic and the subsequent rise in cigarette excise, PT Gudang Garam encountered significant challenges that led to a drop in profitability, reducing net income from close to IDR 11 trillion in 2019 to under IDR 3 trillion in 2022, as shown in Figure 4.

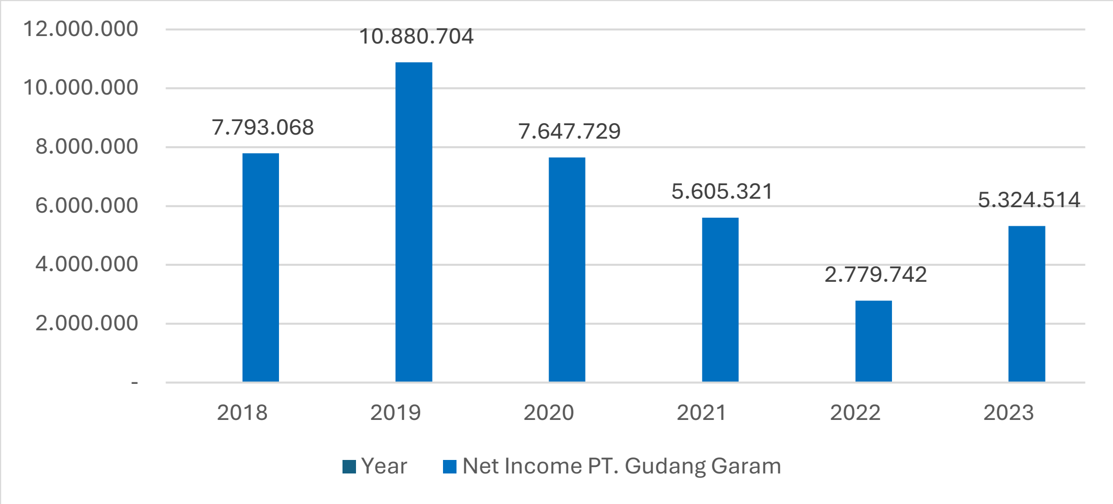

Figure 4: Historical Net Income for the Year (in IDR Million)
Source: PT Gudang Garam Tbk Annual Report, 2023

Authors chose PT Gudang Garam Tbk for this research after the latest government regulation (PP) regarding tobacco is PP No. 28 of 2024 concerning the Implementation of Law Number 17 of 2023 concerning Health. This PP regulates several matters related to tobacco, including Standardize tobacco and e-cigarette product packaging, prohibit the inclusion of product logos or brands, limiting retail cigarette sales, limiting cigarette advertising, including health warnings on cigarette packaging, prohibit the sale of cigarettes within a 200-meter radius of educational units and children's play areas.
Several parties believe that this latest government regulation has the potential to have a negative impact on the tobacco industry, including unhealthy competition, the rise of illegal cigarettes, impact on millions workers, impact on the economic sector and tax revenues.

1. LITERATURE REVIEW

1.1. Cigarette Industry

According to the Minister of Finance Regulation Number 192/PMK.010/2021, the types of cigarette products subject to excise rates are: Cigarettes, Cigars, Leaf or klobot cigarettes, Sliced tobacco.
In addition, several types of cigarettes circulating in Indonesia are Hand-Rolled Kretek Cigarettes (SKT), Machine-Rolled Kretek Cigarettes (SKM), Machine-Rolled White Cigarettes (SPM), Mild Cigarettes, Menthol Cigarettes, Electronic Cigarettes (Vape)
The Indonesia states revenue generated from cigarettes through the Tax mechanism, Indonesia's tobacco tax structure is complex, with different tax rates based on production volume, technique, flavor, and retail prices. This structure is considered to reduce the effectiveness of tobacco tax policy in curbing tobacco consumption, as depicted in Table 1.

Table 2: State Revenue from Cigarette

Description	Tariff
VAT (Value Added Tax)	11% (calculated of selling price)
Corporate Income Tax	22% (calculated of net income)
Excise Tax	10% (calculated of retail selling price)

Source: Ministry of Finance, 2023

WHO recommends that Indonesia increase tobacco taxes by at least 25% annually and simplify the tobacco tax structure. The WHO also calls for a ban on the use of flavorings in NENTPs (Novel and emerging Nicotine and Tobacco Products) and a complete ban on tobacco advertising in media. It can be one of the cause of decrease of cigarettes among other tobacco control program.

The decrease of cigarette consumption was caused by the variation of tobacco control program that included health campaign, excise tax, limitation cigarette advertising, smoking ban di public places and workplaces and control supply of tobacco production as explained by Chaulapka and Warner (1998). The increase of cigarette tax decreased cigarette production (SKT and SKM) and supply of clove cigarettes also showed by Harini (2001).

1.2. Financial Statements and Annual Reports

Financial statements are essential documents that reflect a company's financial performance and position over a specific period. According to Anthony, Hawkins, Merchant 2013

According to Chris B Murphy (2024), Financial statements provide governments, investors, executives, and lenders with a picture of a company's financial activities and profitability. Four part in statements required by Generally Accepted Accounting Principles (GAAP) are the balance sheet, the income statement, the statement of cash flows and changes in shareholder's equity. The balance sheet provides an overview of assets, liabilities, and shareholders' equity as a snapshot in time. The income statement reports a company's revenues and expenses, including a company's profit figure called net income. The cash flow statement (CFS) tracks how a company uses its cash to pay its debt obligations and fund its operating expenses and investments.

1.3. Altman Z Score

E.I. Altman (1968) created the first multivariate bankruptcy prediction model at New York University in the late 1960s. The multivariate approach to failure prediction gained popularity among finance, banking, and credit risk researchers globally following this pioneering work. Edward I. Altman developed the Altman Z-Score model based on a sample of 66 manufacturing enterprises. Altman's research successfully predicted a company's bankruptcy with 95% accuracy using financial statement data from one year prior. Altman's (1968) development of the Z-Score Model, which includes 5 ratios, was a significant advancement in multiple discriminant analysis. Table 2 shows the Altman Z-Score formula.

Table 3: Altman Z-Sore Formula

$Zi = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$
Where
Zi = Z-Score
X_1 = Working Capital Divided by Total Assets
X_2 = Retained Earnings Divided by Total Assets
X_3 = Earnings Before Interest and Tax Divided by Total Assets
X_4 = Market Value of Equity Divided by Total Liabilities
X_5 = Sales Divided by Total Assets

Source: Altman, 2006

Based on explanation from Edward Altman, if the result of Altman Z-score shows the figure below 1,8 it shows that the Company has a high likelihood of bankruptcy in near-term future. If the indicator of Altman Z-Score is between 1,88 and 2,29 it means the financial health of the Company is in the grey area and it is mos likely in critical situation and need an utmost action to rescue the Company. If the Almant Z-Score is above 2,99 it means the Company is in healthy condition from financial perspective.

Table 4: Altman Z-Sore Criteria & meaning

Value criteria	Meaning
The Z-Score <1.1	The business is going through the financial distress.
The Z-Score is between 1.1 and 2.6,	The business belonged in the grey area.
The Z-Score is >2.6,	The business is not experiencing financial distress.

Altman Z-score cannot be used solely for companies in financial service sector as the balance sheet and income statement of financial statement have many different terms and interpretation compared to other industry such as manufacturing and mining sectors. As such, Binus University in Indonesia (2015) explained that there are two types of Altman Z-score formula, that is used for manufacturing and non-manufacturing sector as shown in Table 3.

Table 5: Altman Z-Score for Manufacturing and Non-Manufacturing Business

Z-Score for Manufacturing Business:	Z-Score for Non-Manufacturing Businesses:
$Z = 1{,}2X_1 + 1{,}4X_2 + 3{,}3X_3 + 0{,}6X_4 + 0{,}99X_5$	$Z = 0{,}717X_1 + 0{,}847X_2 + 3{,}107X_3 + 0{,}420X_4 + 0{,}998X_5$

2. RESEARCH METHODOLOGY

The aim of this study is to assess and evaluate the possible financial difficulties of PT Gudang Garam Tbk. This study employs a quantitative approach, utilizing data extracted from the audited financial statements of PT Gudang Garam Tbk. the study use the data from fiscal year ending 31 December 2019 to 31 December 2023. In order to analyze the bankruptcy, the ratio used are following:

2.1 Working Capital Divided by Total Asset (X_1)

X_1 represents the amount of net working capital produced by the Company. The X_1 ratio is determined by dividing net working capital by total assets. By deducting the current liabilities from current assets, net working capital is concluded. A positive outcome indicates the Company can meet its short-term obligations since current assets surpass current liabilities. Conversely, a negative result signifies that current liabilities exceed current assets, suggesting the Company may struggle to fulfill its short-term obligations due to insufficient current assets to cover current liabilities.

$$X_1 = \frac{\text{Net working capital}}{\text{Total Asset}}$$

2.2 Retained Earnings Divided by Total Assets (X_2)

X_2 demonstrates the effectiveness of accumulated profitability by comparing it with total assets. By computing X_2, the Company can determine how well one dollar of assets generates retained earnings. The retained earnings are the accumulated profits that remain on the balance sheet (under equity) after dividend distributions. A low X_2 indicates that the Company is financing its capital expenditures through borrowed funds instead of utilizing the retained earnings. Conversely, a high X_2 suggests that the Company is funding its capital expenditures with accumulated funds from retained earnings rather than relying on borrowed money.

$$X_2 = \frac{\text{Retained Earnings}}{\text{Total Asset}}$$

2.3 Earnings Before Interest and Tax Divided by Total Assets (X_3)

X_3 demonstrates how effectively the Company is able to generate income from its total assets. Earnings Before Interest and Tax (EBIT) serves as the metric for measuring profitability, maintaining consistency in this analysis by excluding tax and interest factors when making comparisons with other firms in the same industry or sector. A high value for X_3 indicates that the Company has successfully utilized its assets to produce profit. Conversely, a low value for X_3 suggests that the Company needs to enhance its efficiency in using its assets to generate profit.

$$X_3 = \frac{\text{Earning Before Income Tax}}{\text{Total Asset}}$$

2.4 Market Value of Equity Divided by Total Liabilities (X_4)

X_4 represents the extent of financial leverage utilized by a company. A high value of X_4 indicates strong confidence among public investors in the company's ability to manage its liabilities. Conversely, a low value of X_4 signifies weak confidence from public investors regarding the company's capability to handle its liabilities, which can be concerning for stakeholders, particularly when stock prices decline due to fluctuations in the local index.

$$X_4 = \frac{\text{Market Value of Equity}}{\text{Book Value of Debt}}$$

2.5 Sales Divided by Total Assets (X_5)

X_5 demonstrates how well the Company is capable of generating revenue from its assets. A high value of X_5 indicates that the Company is successful in producing revenue from its assets. Conversely, a low value of X_5 suggests that the Company needs to enhance its effectiveness in generating revenue from its total assets.

$$X_5 = \frac{\text{Total Sales}}{\text{Total Assets}}$$

3. RESULT AND DISCUSSION

3.1 Working Capital Divided by Total Sales (X_1)

The working capital to total asset of PT Gudang Garam Tbk from the year of 2018 to 2023 are shown below in table 6.

Table 6: Working Capital to Total Asset of PT Gudang Garam Tbk year of 2018-2023 (in million Rupiah)

	2018	2019	2020	2021	2022	2023
Current Assets	45,284,719	52.081.133	49.537.929	59.312.578	55.445.127	54.115.182
Current Liabilities	22,003,567	25.258.727	17.009.992	28.369.283	29.125.010	29.536.433
Working Capital	23,281,152	26.822.406	32.527.937	30.943.295	26.320.117	24.578.749
Total Assets	69,097,219	78.647.274	78.191.409	89.964.369	88.562.617	92.450.823
Value of X_1	0,34	0,34	0,42	0,34	0,30	0,27

Source: Processed Data, 2024

The value of net working capital calculated as 'Current Asset - Current Liabilities', it is obtained prior the determining of X_1 number. The increase of value of X_1 in 2019 to 2020 and then experiencing a decreasing trend to from 2020 to 2023.

The decrease value of X_1 from 2021 to 2023 indicates that PT Gudang Garam Tbk's current liabilities increase by 73,6% from 2020 to 2023 which is higher than the increase in current assets from 2020 to 2023 (at 9,2%). As such, it shows not a good sign to represent X_1.

3.2 Retained Earnings Divided by Total Assets (X_2)

The retained earnings to total asset of PT Gudang Garam Tbk from the year of 2018 to 2023 are shown in table 7.

Table 7: Retained Earning to Total Asset of PT Gudang Garam Tbk year of 2018-2023 (in million Rupiah)

	2018	2019	2020	2021	2022	2023
Retained Earning	43,950,868	49.948.338	57.540.043	58.305.843	56.873.532	59.880.407
Total Assets	69,097,219	78.647.274	78.191.409	89.964.369	88.562.617	92.450.823
Value of X_2	0,64	0,64	0,74	0,65	0,64	0,65

Source: Processed Data, 2024

The total value of Retained Earnings calculated first as, 'Retained Earnings Appropriated + Unappropriated', it is obtained prior the determining number of X_2. Table 5 shows the stable in 2018 to 2019, and increase in value of X2 in 2019 to 2020 and then decrease to 0,65% in 2021 and be stable level until 2023.

The decrease value of X_2 from 2021 to 2023 indicates that PT Gudang Garam Tbk's total asset increase by 18,2% from 2020 to 2023 which is higher than the increase in retained earnings from 2020 to 2023 (at 4,1%). As such, it shows not a good sign to represent X_2

3.3 Earnings Before Interest and Tax Divided by Total Assets (X_3)

Earnings Before Interest and Tax to total asset of PT Gudang Garam Tbk from the year of 2018 to 2023 are shown in table 8.

Table 8: EBIT to Total Asset of PT Gudang Garam Tbk year of 2019-2023 (in million Rupiah)

	2018	2019	2020	2021	2022	2023
EBIT	11,156,804	15.073.090	10.045.855	7.361.765	3.908.926	7.439.598
Total Assets	69,097,219	78.647.274	78.191.409	89.964.369	88.562.617	92.450.823
Value of X_3	0,16	0,19	0,13	0,08	0,04	0,08

Source: Processed Data, 2024

The EBIT calculated first as, 'Net Income for the Year + Interest Expense + Tax Expense', it is obtained prior the determining of X_3 number. Table 7 shows the decreasing trend in value of X_3 from 0,19 in 2019 to minimum level at 0,04 in 2022 before it rebound to 0,08 in 2023.

The reduce value of X_3 from 0,19 in 2019 to 0,04 in 2022 indicates that PT Gudang Garam Tbk's net income for the year shows declining trend. It means not a good sign to represent X_3.

3.4 Market Value of Equity Divided by Total Liabilities (X_4)

The Market Value of Equity to Total Liabilities of PT Gudang Garam Tbk from the year of 2018 to 2023 are shown in table 9.

Table 9: Market Value of Equity to Total Assets of PT Gudang Garam Tbk year of 2018-2023 (in million Rupiah)

	2018	2019	2020	2021	2022	2023
Market Value of Equity	160,901,859	101.976.664	78.887.608	58.877.093	34.633.584	39.107.089
Total Liabilities	23,963,934	27.716.516	19.668.941	30.676.095	30.706.651	31.587.980
Value of X_4	6,71	3,68	4,01	1,92	1,13	1,24

Source: Processed Data, 2024

The value of market value of equity calculated first as, ‘number of outstanding shares times share price of PT Gudang Garam Tbk as of 31 December’, it is obtained prior the determining of X_4 number. Table 8 shows declining trend in value of X_4 from 4,01 in 2020 to 1,24 in 2023. The reduction value of X_4 from 4,01 in 2020 to 1,24 in 2023 indicates that the market value of equity shows decreasing trend and it is not a good sign to represent X_4.

3.5 Sales Divided by Total Assets (X_5)

The total Sales to Total Assets of PT Gudang Garam Tbk from the year of 2018 to 2023 is reflected in table 9.

Table 10: Sales to Total Assets of PT Gudang Garam Tbk year of 2018-2023 (in million Rupiah)

	2018	2019	2020	2021	2022	2023
Sales	95,707,663	110.523.819	114.477.311	124.881.266	124.682.692	118.952.997
Total Assets	69,097,219	78.647.274	78.191.409	89.964.369	88.562.617	92.450.823
Value of X_5	1,39	1,41	1,46	1,39	1,41	1,29

Source: Processed Data, 2024

Table 10 shows the fluctuate trend in value of X_5 by being almost flat at around 1,40 level from 2018 to 2022 before it dips into 1,29 in 2023.
The reduce value of X_5 in 2022 to 2023 indicates that the sales declined in 2023 whereas the total assets increased by 4,4% in 2023. It shows not a good sign in value of X_5.

3.6 Altman Z-Score (X_6)

Altman Z-Score of PT Gudang Garam Tbk from the year of 2018 to 2023 are shown in table 11.

Table 11: Altman Z-Score of PT Gudang Garam Tbk year of 2018-2023

	2018	2019	2020	2021	2022	2023
X_1	0,34	0,34	0,42	0,34	0,30	0,27
X_2	0,64	0,64	0,74	0,65	0,64	0,65
X_3	0,16	0,19	0,13	0,08	0,04	0,08
X_4	7,31	3,68	4,01	1,92	1,13	1,24
X_5	1,39	1,41	1,46	1,39	1,41	1,29
Z-Score	7,23	5,53	5,81	4,12	3,47	3,51

Source: Processed Data, 2024

Table 11 illustrates the downward trend of Altman Z-Score, decreasing from 5.81 in 2020 to 3.51 in 2023. While PT Gudang Garam Tbk. demonstrates a declining Altman Z-Score, the lowest recorded value over the past five years is 3.51, which remains above the median range and exceeds the threshold of 1.80.
Despite the continuous decrease in Altman Z-Score from 2020 to 2023, this data indicates that PT Gudang Garam Tbk. is not showing any signs of approaching a bankruptcy situation, as the minimum Altman Z-Score recorded is 3.47, significantly above the critical threshold of 1.80.

4. CONCLUSION

The aim of this study is to assess the financial stability and the potential for bankruptcy of PT Gudang Garam Tbk, with the following findings:
1. Working capital divided by total asset shows declining trend from 2020 to 2023. It indicates that the growth of current liabilities is faster than growth of current assets.

2. Retained earnings divided by total assets shows stable and increase in 2018 to 2020, but declining trend from 2020 to 2021 and then it becomes stable in 2022 and 2023. It indicates that the growth of total assets is being balanced with the slowing growth of profitability.
3. The ratio of earnings before income tax to total assets increased from 2018 to 2019 but displayed a declining trend from 2019 to 2022, rebounding in 2023, which signifies that PT Gudang Garam Tbk's profitability has been influenced by external factors such as the Covid-19 pandemic and rising excise taxes.
4. The market value of equity in relation to total liabilities shows a downward trend from 2020 to 2023 before rising in 2023, reflecting a market appreciation of PT Gudang Garam Tbk.'s shares despite a concurrent decline in profitability.
5. The ratio of sales to total assets remained stable from 2019 to 2022 but experienced a decline in 2023, indicating that PT Gudang Garam Tbk. saw its sales drop in 2023 for the first time in five years, influenced by external factors like increased excise tax and the recovery of purchasing power among lower-income classes not returning to pre-Covid-19 levels.
6. According to the Altman Z Score method, the financial performance of PT Gudang Garam Tbk from 2019 to 2023 is represented by an Altman Z-Score value of 5.53.

5. RECOMMENDATION

According to the Altman Z-Score analysis, PT Gudang Garam Tbk falls within the green or safe zone category, indicating that the company has not faced any financial difficulties during the 2018-2023 period. Despite being in the green zone, the Altman Z-Score has shown a declining trend, decreasing from 2020 to 2023, which suggests a drop in profitability, and for the first time in five years, sales experienced a decline in 2023. It is advisable for PT Gudang Garam Tbk to handle their expenses and liabilities more prudently by adopting a cautious approach and exploring various strategies to maintain sales growth, especially considering the company decision in their involvement of funding the Kediri Airport development & also the challenges posed by the new government regulation under PP No. 28 of 2024, which requires careful and positive responses.

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CHAPTER 12

Strategic Investment Decision and Evaluation to Acquire 1.000 Ton Launcher Gantry for Toll Road Harbour Road Project of PT Wijaya Karya (Persero), Tbk. Indonesia

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ABSTRACT

East Ancol – Pluit Toll Road (Harbour Road) is one of the elevated toll roads built to reduce traffic congestion and facilitate the mobility of people and goods, especially in North Jakarta. With the construction of this elevated toll road, it is expect to develope in transportation mobility. This will undoubtedly positively impact the economy, as goods and people will be able to move more quickly and efficiently. The project was carried out by PT. Wijaya Karya (Persero), Tbk. (WIKA), a state-owned company, Infrastructure I since early 2021 and expected will be finished 2027. This elevated toll road uses Precast Box Girder as its main girder. In the process of installing the Precast Box Girder using a Launcher Gantry (LG) with a capacity of 1,000 tons. The purpose of this study is to measure and evaluate the feasibility for investment of 1.000 Ton LG with consideration of budget, safety and increase quality by combining mixed method: strategic analysis using SWOT Analysis, capital budgeting analysis using elements such as: Payback Period, Discounted Payback Period, Return on Investment (ROI), Net Present Value (NPV), NPV Index, Internal Rate of Return (IRR), Weighted Average Cost of Capital (WACC), as well as non-monetary analysis using the Sustainable Development Goals to assist the company in making decision.
Keywords: Capital Budgeting, Strategic Analysis, Financial, Feasibility, Launcher Gantry

1. INTRODUCTION

The construction sector is the fifth-largest contributor to Indonesia's GDP, accounting for 9.77% in 2022 (PS, 2022). This growth is largely driven by the government's efforts, particularly through the Ministry of Public Works and Public Housing (PUPR), to develop infrastructure and enhance connectivity across the country. The largest portion of the PUPR budget for 2022 was allocated to connectivity infrastructure and water resource resilience programs, which are key to economic growth. Indonesia has also seen significant population growth, reaching 275.77 million people in 2022, an increase of 1.13% from the previous year (Statistics Indonesia, 2022). This rapid growth is driving the demand for an efficient and effective transportation system. As a result, well-planned urban road network management is becoming increasingly critical, especially to address the growing traffic congestion in urban areas such as Jakarta and its surrounding cities (Jabodetabek). One major ongoing infrastructure project is the construction of the Harbor Road II toll road, part of the Jakarta Outer Ring Road (JORR) network. This project aims to increase the service capacity of toll roads around the Tanjung Priok Port area, a vital logistics hub on the island of Java. The project will also support smoother freight and passenger movement, which is essential for the region's economic growth. To achieve this, sophisticated construction technologies and equipment, such as the Launcher Gantry (LG), are required for bridge construction.

The Harbor Road II project is planned to span 9.7 km with a total elevation of up to 22 meters. The bridge structure will use a Box Girder with a span of 47 meters, requiring a Launcher Gantry (LG) with a lifting capacity of 1,000 tons. Currently, there is only one LG in Indonesia capable of lifting 1,000 tons. A significant challenge in this project is the limited availability of the required equipment. Most of the LGs currently available in Indonesia have a lifting capacity of only 850 tons, which is insufficient for the project’s needs. Therefore, one option being considered is to import LGs with a higher lifting capacity of 1,000 tons from abroad to ensure the project is completed on time.

The construction of toll road bridges in urban areas, especially in Jakarta, faces several challenges, including limited land, the presence of underground and overhead utilities, and the availability of suitable construction equipment. The Harbor Road II project, located near the port and a major logistics center, faces additional challenges, such as restricted access and the need for specialized heavy equipment. Consequently, deciding whether to purchase locally available Launcher Gantry equipment or to import the required equipment from abroad is a crucial decision. Currently, PT Wijaya Karya (Persero), Tbk. owns only one unit of LG with a lifting capacity of 850 tons, which is insufficient for the demands of this project. Therefore, this research will focus on evaluating whether to purchase a locally available LG or to import a 1,000-ton LG to meet the project’s needs.

Based on the information provided, this study aim to analyz to measure and evaluate the feasibility for investment of 1.000 Ton LG with consideration of budget, safety, and increase quality by combining mixed method: strategic analysis using SWOT Analysis, capital budgeting analysis using elements such as Payback Period, Discounted Payback Period, Return on Investment (ROI), Net Present Value (NPV), NPV Index, Internal Rate of Return (IRR), Weighted Average Cost of Capital (WACC), as well as non-monetary analysis using the Sustainable Development Goals to assist the company in making decision.

2. LITERATURE REVIEW

The literature review chapter serves as a critical foundation for this research, setting the stage for understanding the context and theoretical frameworks that guide the study. It is designed to provide the necessary theoretical background, including an exploration of key analytical tools and models such as SWOT Analysis, Capital Budgeting, and Sustainable Development Goals (SDGs). These elements collectively form the core of the research framework, providing a systematic approach for assessing and evaluating strategic business decisions.

2.1. SWOT Analysis

SWOT analysis is a widely recognized tool used in strategic planning to assess an organization's internal and external environments. According to Freddy Rangkuti, SWOT is an approach to systematically identifying factors that are crucial in developing an organization's strategic decisions. It provides a method to maximize strengths and opportunities while minimizing weaknesses and threats (Rochman, 2019). SWOT analysis focuses on both the internal environment, which includes the company's strengths and weaknesses, and the external environment, which evaluates the opportunities and threats posed by market conditions.

1. Strengths refer to the internal capabilities and resources that give a business a competitive advantage. These are the aspects of a company that have been effectively managed to enhance its performance, such as skilled personnel, efficient operations, or strong brand recognition.
2. Weaknesses, on the other hand, are internal factors that hinder the organization's ability to achieve its goals. These could include limited resources, poor management practices, or technological deficiencies that result in negative outcomes for the company (Rusmawati, 2017).
3. Opportunities and Threats are external factors that arise from the market environment. Opportunities refer to external conditions that could potentially benefit the organization, such as market trends, emerging technologies, or changes in consumer preferences. Conversely, threats represent external challenges, like increasing competition or regulatory changes, that could negatively impact the business.

The process of conducting a SWOT analysis can be broken down into three critical stages:

1. Data Collection: This stage involves gathering information on both internal and external factors that can affect the company’s strategy. It is essential to collect accurate and relevant data to ensure that the analysis is grounded in real-world conditions.
2. Analysis: After collecting data, the next step is creating a SWOT matrix. This matrix will categorize the internal and external factors identified in the first stage into strengths, weaknesses, opportunities, and threats.
3. Decision-Making: Based on the SWOT matrix, strategic decisions are made. These decisions aim to align the organization's internal capabilities with external opportunities, while also mitigating risks posed by weaknesses and threats.

As mentioned earlier, SWOT analysis is driven by both internal and external factors:

1. Internal Factors:
    - Strengths: These are the capabilities and resources that a company has mastered and can effectively use to its advantage. Examples might include a highly skilled workforce, proprietary technologies, or a loyal customer base.
    - Weaknesses: These are areas where the organization is lacking or underperforming. They could include ineffective processes, limited resources, or any aspect of the business that is not functioning optimally.
2. External Factors:
    - Opportunities: These are external elements or trends that can be leveraged to benefit the company. For example, new market demands, technological advancements, or favorable regulatory changes.
    - Threats: These refer to external risks or challenges that could negatively affect the business, such as economic downturns, competitive pressures, or shifts in consumer behavior.

The SWOT analysis is typically organized in a matrix format that helps visualize how internal and external factors relate to each other.

Analyst Objective	Opportunities	Threats
Strengths	S-O Strategy: Leverage strengths to take advantage of opportunities	S-T Strategy: Utilize strengths to counteract or minimize threats
Weaknesses	W-O Strategy: Address weaknesses by taking advantage of opportunities	W-T Strategy: Mitigate weaknesses while defending against threats

SWOT Strategies

- S-O Strategy: This strategy aims to leverage internal strengths to capitalize on external opportunities. The goal is to maximize the benefits of favorable market conditions by aligning strengths with emerging opportunities.
- S-T Strategy: This strategy focuses on using a company's strengths to mitigate or avoid external threats. It's about using what the company does best to safeguard against risks from competition, market changes, or other external pressures.
- W-O Strategy: This strategy involves addressing internal weaknesses while simultaneously exploiting external opportunities. It focuses on improving organizational processes or capabilities to benefit from market conditions.
- W-T Strategy: This strategy is defensive and aims to minimize both internal weaknesses and external threats. It is often applied in situations where a company faces both internal limitations and external challenges.

2.2. Capital Budgeting

Capital budgeting refers to the process of evaluating and selecting long-term investment projects that will generate returns over an extended period, typically exceeding one year. This process involves assessing the financial feasibility of projects using various methods, such as Payback Period, Net Present Value (NPV), Internal Rate of Return (IRR), and others.

1. Payback Period: This method calculates the time required to recover the initial investment. Projects with shorter payback periods are often considered more attractive because they promise quicker returns. The following is the payback period formula:
   a. $Payback\ Period = \frac{Original\ Investment}{Annual\ Net\ Cash\ Flow} \times 1\ year$
2. Discounted Payback Period: This variation of the payback period accounts for the time value of money, adjusting for the fact that future cash flows are worth less than immediate ones. The decision-making criteria whether the project to be carried out is feasible or not feasible for this method (Eka Wardani Haliasih et al., 2021) are :
   Project investment will be considered feasible if the Discounted Payback Period has a shorter period of time than the project life. Project investment has not been considered feasible if the Discounted Payback Period has a period of time longer than the project life.
3. Net Present Value (NPV): NPV calculates the difference between the present value of cash inflows and the initial investment cost, factoring in the time value of money. A positive NPV indicates a profitable investment. The advantage of NPV is that it uses the concept of time value of money. So before calculating / determining NPV, the most important thing is to know or estimate future cash inflows and cash outflows (Hm & Setiawan, 2023).

The following is the NPV formula :

$$NPV = \sum_{t=1}^{n} \frac{CF_t}{(1+r)^t} - CF_0$$

4. Internal Rate of Return (IRR): IRR is the discount rate at which the NPV of a project equals zero. It is used to determine the expected profitability of an investment. If the IRR exceeds the required rate of return, the project is considered viable. IRR is used in determining whether an investment is carried out or not, for which a reference is usually used that the investment made must be higher than the Minimum acceptable rate of return or Minimum attractive rate of return (MARR). MARR is the minimum rate of return on an investment that an investor dares to make (Nuraidi, 2021).
   The following are the formulas or rules in IRR:
   Internal Rate of Return = *Discount rate that makes NPV=0; implies discounted cash inflows equal discounted cash outflows*
   Internal Rate of Return Rule = Accept investment if IRR is greater than Threshold Rate of Return, else reject.

5. Profitability Index (PI): The Profitability Index is a ratio of the present value of future cash flows to the initial investment. A PI greater than 1 suggests that the project is profitable.
   Here is the PI formula:
   $$Profitability\ Index = \frac{Net\ Present\ Value}{Initial\ Investment} \times 100\%$$
6. Return on investment describes the amount of return that can be generated in a certain amount of investment. Investment is the total debt and equity for the project. It also represents the profitability of the project. The criteria are the same as ROE, the value must be greater than zero (Sumawinata et al., 2022):
   The following is the ROI formula:
   $$ROI = \frac{Net\ Income}{Debt + Equity}$$

2.3. Sustainable Development Goals (SDGs)

The SDGs, adopted by the United Nations in 2015, are a set of 17 global goals aimed at addressing pressing global challenges and achieving a sustainable future by 2030. These goals emphasize the interconnections between economic, social, and environmental dimensions of development, underscoring the need for collective action from governments, businesses, and civil society.

The SDGs focus on a broad range of issues, including poverty reduction, gender equality, climate action, and sustainable economic growth. Notably, SDG 17 emphasizes the importance of partnerships across sectors to achieve these ambitious goals.

The SDGs aim to promote sustainability and address global issues such as climate change, poverty, inequality, and environmental degradation. The goals reflect a commitment to creating a more equitable and sustainable world for future generations.

3. RESEARCH METHOD

Sekaran and Bougie (2017) explain that research design is a strategy used to collect, analyze, and interpret data in alignment with the research objectives. The research process in this thesis consists of several stages as follows:

1. Stage 1: Strategic Analysis through Interviews with the Project Leader at the Company.
2. Stage 2: Capital Budgeting Analysis.
3. Stage 3: Sensitivity Analysis.
4. Stage 4: Non-Monetary Analysis.

3.1. Stage 1 – Strategic Analysis through Interviews with the Project Leader at the Company

Strategic analysis involves reviewing the internal and external conditions of the organization, evaluating the existing strategy, and developing and assessing alternative strategies that are most likely to be implemented. A strong understanding of the company's identity and values is crucial in formulating an effective business strategy. To develop a robust strategy, the company must have a deep understanding of its identity and the values it represents. Therefore, from the outset, the company needs to conduct an environmental review of the strategies currently in place.

Several issues that need to be evaluated within the internal environment include operational inefficiencies, employee morale, and financial limitations. The external environment includes political changes, economic instability, and shifts in customer preferences. The primary objective of the strategic analysis is to assess the effectiveness of the current strategy in relation to the prevailing business conditions.

Additionally, quantitative data will also be collected, including project costs, existing capacity, assumptions, and other technical data.

3.2. Stage 2: Capital Budgeting Analysis

In this study, the author uses data and information from PT. Wijaya Karya (Persero) Tbk to calculate the Payback Period, Discounted Payback Period, Return on Investment (ROI), Net Present Value (NPV), NPV Index, Internal Rate of Return (IRR), and Weighted Average Cost of Capital (WACC).

3.3. Stage 3: Non-Monetary Analysis

This research also includes a non-monetary analysis to assist management in assessing whether the project should continue or be halted, with reference to the Sustainable Development Goals (SDGs). Figure 3.1 illustrates the research methodology flow used to answer the research questions and objectives.

Figure 3.1 Research Methodology

4. RESULT AND DISCUSSION

4.1. SWOT Analysis Result

The decision to purchase the 1000 Ton Launcher Gantry for the Harbour Road 2 Toll Road Project involves a comprehensive evaluation of various internal and external factors. This analysis is vital for assessing the feasibility and long-term benefits of such an investment. The following SWOT analysis provides an insight into the key strengths, weaknesses, opportunities, and threats associated with this decision.

1. Strengths

One of the primary strengths of acquiring the 1000 Ton Launcher Gantry is its potential to significantly improve construction efficiency. The launcher gantry's high load capacity facilitates the faster installation of Precast Box Girders, which is essential for the timely completion of the Harbour Road 2 Toll Road Project. This accelerated construction process is critical in reducing project delays and ensuring the project stays within its timeline.

Moreover, safety improvements are a key benefit, as the 1000 Ton Launcher Gantry is specifically designed to handle heavy loads safely, minimizing the risk of accidents at the construction site. The machine's automated nature reduces human error and injury, ensuring a safer work environment for employees.

In addition, the durability of the equipment offers long-term benefits for PT Wijaya Karya. The 1000 Ton Launcher Gantry is built to withstand the rigors of large-scale infrastructure projects, meaning it can be used in future projects, thus providing continued value for the company. The precise installation of the Precast Box Girders also ensures that the construction quality is high, contributing to the structural integrity of the toll road.

2. Weaknesses

Despite these strengths, there are some notable weaknesses associated with the purchase of the Launcher Gantry. The primary challenge lies in the high initial purchase cost. The investment required for acquiring such advanced machinery is substantial, which may strain the company's financial resources in the short term. The cost of procurement needs to be weighed against the anticipated returns and potential long-term savings.

Another weakness is the maintenance and operational costs associated with the 1000 Ton Launcher Gantry. While the equipment is durable, it requires regular maintenance to ensure optimal performance, which could add significant operational costs. Failure to properly maintain the machinery may lead to unanticipated breakdowns, delaying the project timeline and increasing overall costs.

Additionally, the limited utilization of the Launcher Gantry in other projects may present a drawback. Since this equipment is specifically designed for large-scale infrastructure projects, it may not be applicable for other smaller-scale projects within PT Wijaya Karya's portfolio. As a result, the company may face challenges in justifying the high initial cost if similar projects are not immediately available.

3. Opportunities

Despite the potential challenges, the acquisition of the 1000 Ton Launcher Gantry opens up several opportunities. Firstly, it provides PT Wijaya Karya with a competitive advantage in bidding for large-scale infrastructure projects. The ability to utilize advanced technology like the Launcher Gantry positions the company as an industry leader, enabling it to attract future high-value projects.

In addition, the long-term savings resulting from the enhanced construction speed and reduced labor costs could offset the initial investment. The efficiency gains from the Launcher Gantry can lead to better budget management and project completion within the scheduled timeframe, thereby increasing the profitability of the Harbour Road 2 Toll Road Project.

Furthermore, PT Wijaya Karya can capitalize on the opportunity to strengthen its reputation in the construction industry. By investing in advanced machinery, the company demonstrates its commitment to delivering high-quality, safe, and efficient projects. This, in turn, could attract new clients and open doors to more prestigious contracts.

4. Threats

However, the decision to invest in the 1000 Ton Launcher Gantry is not without its threats. Economic instability is one of the main external risks. Fluctuations in the market, inflation, or unforeseen increases in material costs could affect the project's overall profitability. These economic uncertainties could make the high upfront costs of the Launcher Gantry more burdensome for the company.

Additionally, PT Wijaya Karya's reliance on the performance of this specific equipment presents a potential risk. If the Launcher Gantry were to experience operational issues or breakdowns, it could lead to significant delays and unanticipated costs, which could jeopardize the timely completion of the project.

Lastly, regulatory changes pose a threat to the continued use of the equipment. Changes in government policies or regulations related to the construction industry, such as restrictions on heavy machinery or new environmental standards, could impact the project's progress and the viability of using the 1000 Ton Launcher Gantry.

4.2. Capital Budgeting Result

In the Harbour Road 2 Toll Project, PT Wijaya Karya (Persero), Tbk performed a thorough capital budgeting analysis to evaluate the investment in the Launcher Gantry 1000 Tons (LG 1000 Tons).

Table 1. Capital Budgeting Result

No.	Capital Budgeting	Result
1.	Payback Period (Year)	4.2
2.	Return of Investment (Average)	45.5%
3.	NPV (IDR)	1,443,601,202
4.	NPV Index / Profitability Index	1.94
5.	Discounted Payback Period (Year)	5.1
6.	IRR (%)	22.39%
7.	WACC	9.36%

According to table 1, the primary aim of the analysis was to assess the financial viability of the investment and its potential returns. The following summarizes the key findings based on various capital budgeting techniques used in the evaluation process:

1. Payback Period
   The Payback Period for the investment in the LG 1000 Tons is 4.2 years. This metric represents the amount of time required to recover the initial investment from the future cash inflows generated by the project. A payback period of 4.2 years indicates that the company will recover the investment relatively quickly, which is considered favorable for project liquidity and cash flow management.
2. Return on Investment (ROI)
   The ROI for the LG 1000 Tons investment is 45.5%, which is a significant return on the capital invested. This percentage reflects the profitability of the investment by measuring the return relative to its cost. A high ROI of 45.5% indicates that the investment is highly profitable and is expected to generate a substantial return relative to its initial cost. This level of ROI is considered strong, signaling a highly efficient investment decision.
3. Net Present Value (NPV)
   The NPV of the investment is calculated to be IDR 1,443,601,202 (approximately 1.44 billion IDR). The positive NPV indicates that the present value of the future cash flows generated by the project exceeds the initial capital investment. A positive NPV is an important signal that the investment will add value to the company, as it suggests that the project will generate more income than the cost of the capital used. This supports the financial viability and profitability of the investment in the long term.
4. Profitability Index (PI)
   The Profitability Index (PI) for the investment in LG 1000 Tons is 5.1. The PI is the ratio of the present value of future cash flows to the initial investment. A PI greater than 1.0 indicates that the project is expected to generate more value than its cost. A PI of 5.1 signifies a very high level of profitability, meaning the project will produce

significant returns relative to its costs, further supporting the decision to move forward with the investment.

5. Discounted Payback Period
The Discounted Payback Period for the LG 1000 Tons investment is 5.1 years. Unlike the simple payback period, the discounted payback period takes into account the time value of money, adjusting future cash flows for their present value. A discounted payback period of 5.1 years indicates that it will take just over five years to recover the initial investment, considering the time value of money. This is a reasonable timeframe for an investment of this nature and is considered a favorable outcome in terms of both liquidity and financial strategy.
6. Internal Rate of Return (IRR):
The IRR for the LG 1000 Tons investment is 22.39%. IRR represents the annualized rate of return that makes the NPV of the investment equal to zero. Since the IRR exceeds the company's Weighted Average Cost of Capital (WACC) of 9.36%, the project is considered highly profitable. An IRR of 22.39% is significantly higher than the company's cost of capital, indicating that the project is expected to generate a strong return on investment and should be pursued.
7. Weighted Average Cost of Capital (WACC):
The WACC for the investment is 9.36%. WACC represents the company's average cost of financing, including both equity and debt. This rate is crucial in determining the minimum return required for an investment to be considered profitable. Since the IRR of 22.39% exceeds the WACC of 9.36%, the investment is expected to generate returns well above the company's cost of capital, further confirming its financial attractiveness.

4.3. Sustainable Development Goals (SDGs) Result

The investment in the 1000 Ton Launcher Gantry for the Harbour Road 2 Toll Road Project not only enhances the project's efficiency and quality but also plays a significant role in advancing several Sustainable Development Goals (SDGs). This analysis illustrates how the project aligns with specific SDGs and highlights its broader impact on infrastructure development, economic growth, the creation of sustainable cities, and environmental sustainability.

1. SDG 9 – Industry, Innovation, and Infrastructure:

The deployment of the 1000 Ton Launcher Gantry directly supports SDG 9, which focuses on promoting industrial development, innovation, and the creation of resilient infrastructure. The advanced technology embedded in the gantry improves the construction process by integrating innovation into infrastructure development. Its high efficiency and automation capabilities streamline the construction timeline and improve the overall quality, which is critical for building sustainable infrastructure—a key objective of SDG 9. This investment not only enhances the scope of the project but also contributes to the broader goal of developing robust infrastructure in the region.

2. SDG 8 – Decent Work and Economic Growth:

Alongside enhancing infrastructure, the investment also aligns with SDG 8, which focuses on fostering decent work and economic growth. By reducing the need for manual labor and introducing automation, the 1000 Ton Launcher Gantry improves worker safety and enhances the overall work environment. This supports the goal of providing decent working conditions by enabling workers to engage in safer and more productive tasks. Furthermore, the increased efficiency of the construction process helps reduce costs, accelerates project completion, and supports economic growth by optimizing resources and enhancing profitability. The interplay of these factors highlights how the project not only promotes employee welfare but also contributes to the local economy.

3. SDG 11 – Sustainable Cities and Communities:

The project is also instrumental in furthering SDG 11, which aims to foster the development of sustainable cities and communities. The 1000 Ton Launcher Gantry ensures that the toll road construction adheres to high standards, contributing to the development of durable and resilient infrastructure. By prioritizing quality construction practices, the project not only enhances the safety and operational efficiency of the toll road but also ensures the long-term viability of urban mobility in North Jakarta. As cities continue to expand and evolve, this initiative supports SDG 11 by providing infrastructure that is adaptable, durable, and capable of meeting future demands, thereby fostering the growth of sustainable communities.

4. SDG 13 – Climate Action:

Lastly, the environmental benefits associated with the 1000 Ton Launcher Gantry are substantial, aligning with SDG 13, which advocates for climate action. The use of this advanced machinery reduces the environmental footprint of the construction process. By accelerating the construction timeline and minimizing the need for manual labor, the project can reduce emissions related to construction activities and other energy-intensive processes. Additionally, the faster pace of construction helps lessen the long-term environmental impact, supporting global efforts to combat climate change and fostering a more sustainable approach to infrastructure development.

4.4. Discussion

The decision to invest in the 1000 Ton Launcher Gantry for the Harbour Road 2 Toll Road Project involves an in-depth analysis of both internal and external factors that may influence its viability and long-term advantages. To facilitate this, a comprehensive evaluation was conducted using SWOT analysis and capital budgeting techniques, providing a holistic view of the potential benefits, challenges, and expected financial outcomes associated with the acquisition.

1. Strengths

A key strength of acquiring the 1000 Ton Launcher Gantry is its capacity to greatly enhance construction efficiency. The Gantry's high load-bearing capability facilitates faster installation of Precast Box Girders, which is essential for meeting the project's stringent timeline. This capability significantly mitigates potential delays, ensuring the project stays on schedule. Moreover, the Gantry's design improves safety on-site, as it reduces the need for manual labor and lowers the risk of accidents. Additionally, the equipment's durability offers long-term benefits, as it can be deployed in future projects, thereby providing ongoing value to PT Wijaya Karya. The precise installation of Precast Box Girders ensures high-quality construction, which is essential for maintaining the structural integrity and safety of the toll road.

2. Weaknesses

Despite these strengths, several potential weaknesses are associated with the investment. The most significant of these is the high initial cost of acquiring the Gantry. This substantial capital expenditure could place a strain on PT Wijaya Karya's finances in the short term, requiring careful consideration of whether the expected returns justify this large investment. Another challenge lies in the maintenance and operational costs associated with the equipment. While the Gantry is designed for durability, it requires regular upkeep to ensure optimal performance. If the machinery is not maintained properly, breakdowns could occur, leading to delays and additional expenses. Additionally, the Gantry is tailored specifically for large-scale projects, meaning its applicability for smaller-scale projects may be limited, thus potentially complicating the justification for such a high initial outlay unless further similar projects are secured.

3. Opportunities

On the positive side, the acquisition of the 1000 Ton Launcher Gantry presents several strategic opportunities for PT Wijaya Karya. Notably, the equipment gives the company a competitive edge when bidding for large-scale infrastructure projects. By incorporating advanced technology like the Gantry, PT Wijaya Karya positions itself as an industry leader, increasing the likelihood of securing high-value contracts in the future. The enhanced construction efficiency also leads to cost savings, which, coupled with the faster timeline, will likely offset the initial investment. Moreover, PT Wijaya Karya's investment in cutting-edge technology strengthens its reputation for delivering high-quality, efficient, and safe projects, which may open doors to new clients and prestigious contracts.

4. Threats

However, there are external threats that must be carefully considered. One key risk is economic instability. Market fluctuations, inflation, or unexpected increases in material costs could negatively impact the project's profitability. Another potential risk lies in the reliance on the Gantry's performance. Should the equipment face operational issues or breakdowns, delays and unforeseen costs could arise, threatening the project's timely completion. Additionally, regulatory changes in the construction sector, such as new government policies or environmental regulations, may impose limitations on the use of heavy machinery like the 1000 Ton Launcher Gantry, thereby affecting the project's timeline and the overall feasibility of the investment.

5. Capital Budgeting Results

The results from the capital budgeting analysis further support the decision to invest in the 1000 Ton Launcher Gantry. The Payback Period of 4.2 years indicates that the initial capital outlay will be recovered relatively quickly, which is favorable for cash flow management. The Return on Investment (ROI**)** of 45.5% demonstrates a high level of profitability, suggesting that the investment will yield substantial returns relative to its cost. The Net Present Value (NPV) of IDR 1,443,601,202 (approximately IDR 1.44 billion) reinforces this positive outlook, showing that the project will generate more income than its initial cost, further validating the financial feasibility of the investment. The Profitability Index (PI) of 5.1 signals that the project will generate significant returns compared to its initial investment, reinforcing the decision to proceed. Additionally, the Discounted Payback Period of 5.1 years, which factors in the time value of money, demonstrates that the investment will recover its cost within a reasonable timeframe. Finally, the Internal Rate of Return (IRR) of 22.39%, which exceeds the company's Weighted Average Cost of Capital (WACC) of 9.36%, indicates that the project is financially attractive and should deliver strong returns.

6. Sustainable Development Goals (SDGs) Alignment

The 1000 Ton Launcher Gantry investment also contributes to the achievement of several Sustainable Development Goals (SDGs). Specifically:

SDG 9 – Industry, Innovation, and Infrastructure: The Gantry's advanced technology supports innovation in infrastructure development, contributing to the creation of resilient and sustainable infrastructure in the region.

SDG 8 – Decent Work and Economic Growth: The automation introduced by the Gantry reduces the reliance on manual labor, improving worker safety and productivity. It also accelerates the construction process, reducing costs and promoting economic growth by optimizing resources and enhancing profitability.

SDG 11 – Sustainable Cities and Communities: The Gantry ensures the construction of durable and safe infrastructure, contributing to sustainable urban mobility and the development of resilient cities and communities.

SDG 13 – Climate Action: By speeding up construction and reducing the need for manual labor, the Gantry helps lower the environmental footprint of the project. This, in turn, contributes to the global effort to mitigate climate change by reducing emissions from the construction process.

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

The decision to invest in the 1000 Ton Launcher Gantry for the Harbour Road 2 Toll Road Project is an important strategic decision for PT Wijaya Karya (WIKA). The comprehensive SWOT analysis and capital budgeting study show that this investment has major long-term financial and operational benefits.

In terms of finances, the project's 4.2-year payback period demonstrates that the initial expenditure can be recouped rather rapidly, ensuring the company's cash flow and liquid assets. The project is anticipated to yield significant profits, as seen by the IDR 1,443,601,202 NPV and the 45.5% ROI. The project's profitability is supported by its 5.1 Profitability Index, which indicates that it will create more value than it costs. Furthermore, the investment's exceptional profitability and potential to yield substantial returns beyond the company's cost of capital are supported by the IRR of 22.39%, which is much greater than the WACC of 9.36%.

PT Wijaya Karya's long-term strategic goals are in line with the purchase of the 1000 Ton Launcher Gantry, in addition to the favorable financial outlook. Key advantages highlighted by the SWOT analysis include increased construction efficiency, improved safety protocols, and the equipment's longevity for use in large-scale projects in the future. These benefits will support the company's ability to remain competitive in the infrastructure market, especially when it comes to bidding on additional major infrastructure projects.

In addition, the investment promotes a number of Sustainable Development Goals (SDGs), such as SDG 9 (Industry, Innovation, and Infrastructure), SDG 8 (Decent Work and Economic Growth), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action). As a result, this investment is not only profitable but also socially and environmentally responsible.

Through the strategic integration of state-of-the-art machinery such as the 1000 Ton Launcher Gantry, PT Wijaya Karya will establish itself as a leader in the infrastructure industry and improve the caliber, security, and efficiency of building operations. By strategically integrating state-of-the-art machinery like the 1000 Ton Launcher Gantry, which will improve the quality, safety, and speed of construction processes, PT Wijaya Karya will emerge as a leader in the infrastructure sector. Additionally, the company's reputation will be enhanced, attracting additional business and promoting the development of sustainable, resilient infrastructure in places like North Jakarta.

5.2. Recommendations

Given the favorable outcomes of the capital budgeting analysis and SWOT evaluation, it is strongly recommended that PT Wijaya Karya move forward with the acquisition of the 1000 Ton Launcher Gantry. However, to fully leverage the investment and ensure long-term success, the following recommendations should be considered:

1. Create an Effective Maintenance Schedule
   In order to guarantee that the machinery runs as efficiently as possible during the construction phase, a thorough maintenance plan must be established, especially

considering the 1000 Ton Launcher Gantry's crucial role in the project and the significant initial expenditure. Maintaining the project timeline and lowering any additional operating expenses can be achieved by preventing unplanned malfunctions and expensive delays through routine maintenance and prompt repairs. The equipment's lifespan will be increased with proper maintenance, maximizing its long-term value for PT Wijaya Karya.

2. Utilize Equipment to the Fullest on Other Project
   Since the 1000 Ton Launcher Gantry is a very specialized piece of machinery, it is mostly used for major infrastructure projects. But PT Wijaya Karya must see the potential of using the Launcher Gantry in other projects that are part of its portfolio. The business can distribute the cost over time and further justify the original expenditure by integrating the Launcher Gantry into several large-scale projects, increasing the return on investment overall. Furthermore, the machinery can be applied to other upcoming infrastructure or toll road projects, increasing the business's competitiveness in the market.
3. Develop a Comprehensive Risk Management Strategy
   PT Wijaya Karya should create a risk management plan to reduce the risks due to the investment's possible economic instability and external threats. Inflation, market circumstances, material costs, and any regulatory changes that can have an effect on the project should all be examined. In order to handle any unforeseen obstacles and enable the business to adjust to changes in the market, contingency plans will be necessary to keep the project on schedule and profitable.
4. Enhance Training and Worker Safety Initiatives
   Even though the 1000 Ton Launcher Gantry reduces manual labor, it is still very important to make sure that the workers are adequately trained to use the equipment safely and effectively. PT Wijaya Karya should fund training initiatives for its staff to make sure they are prepared to operate the cutting-edge equipment and uphold strict safety regulations on the job site. Encouraging a good safety culture lowers the possibility of delays brought on by mishaps or mistakes while also improving worker well-being.
5. Encourage Assistance with Stakeholders
   Coordination across a range of parties, such as suppliers, subcontractors, and government agencies, is frequently necessary for infrastructure projects to be succeeded. Strong partnerships should be developed between PT Wijaya Karya and these parties to guarantee smooth coordination during the building process. Including important stakeholders early in the planning phase can assist avoid delays, minimize disagreements, and guarantee that the project is completed on time and under budget.
6. Monitor and Report Environmental Impacts
   As part of PT Wijaya Karya’s commitment to sustainable development, it is important to monitor the environmental impacts of the project. While the 1000 Ton Launcher Gantry helps reduce construction time and emissions, the company should establish a monitoring system to track the project’s overall environmental footprint. Reporting on the project's contribution to SDG 13 (Climate Action) will not only demonstrate PT Wijaya Karya's commitment to sustainability but also enhance the company's corporate social responsibility profile, attracting investors and clients who prioritize environmentally responsible practices.

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CHAPTER 13

Assessing Financial Health: Pre-Covid-19 and Post-Covid-19 of PT. PP (Tbk)

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ABSTRACT

This study evaluates the financial health and resilience of PT. PP (Persero) Tbk, an Indonesian state-owned construction enterprise, by comparing financial indicators across the periods before and after the COVID-19 pandemic (2018–2022). Using key metrics such as profitability, liquidity, leverage, and operational efficiency, the analysis highlights the company's financial trajectory amid significant economic challenges. Before the pandemic, PT. PP maintained a robust financial profile, marked by a Price/Earnings (P/E) ratio averaging 9.8 and a return on assets (ROA) exceeding 1.87%, underpinned by strong investment and infrastructure growth in Indonesia. The COVID-19 pandemic in 2020, however, introduced unprecedented disruptions, driving ROA down to 0.5% and return on equity (ROE) to 1.91%, indicating diminished profitability. Despite strategic adjustments, recovery was gradual, with ROA and ROE in 2022 still trailing pre-pandemic levels. Additionally, liquidity constraints intensified, as reflected in the current ratio's decline from 1.42 in 2018 to 1.21 in 2022, alongside a debt-to-equity ratio increase from 222% to 289%. Asset turnover also fell from 0.5 to 0.3, signaling a decrease in operational efficiency. These trends underscore the pandemic's lasting impact on PT. PP's financial structure and stress the need for ongoing strategic measures to build resilience against future economic disruptions.
Keywords: Profitability, Return on Assets (ROA), Post-Pandemic Recovery.

1. INTRODUCTION

The COVID-19 pandemic has significantly impacted the global economy, including the construction sector in Indonesia, as a state-owned enterprise engaged in the construction sector, PT. PP (Persero) Tbk faces significant challenges due to disruptions to the supply chain, reduced demand, and operational restrictions. PT. PP (Persero) Tbk plays a strategic role in implementing large projects, such as the construction of toll roads, public facilities, and commercial buildings. Before the COVID-19 pandemic, the company showed solid financial performance, supported by the growth of national infrastructure investment and macroeconomic stability. The company, which previously showed solid financial performance supported by the growth of Indonesian infrastructure investment, had to adapt to survive amid high economic uncertainty. Before the pandemic, PT. PP maintained a solid financial profile, with an average Price/Earnings (P/E) ratio of 9.8 and a return on assets (ROA) above 1.87%. However, the pandemic in 2020 caused significant disruptions to the company's operations and profitability, with ROA dropping sharply to 0.5% and return on equity (ROE) reaching only 1.91%. In addition, liquidity pressures increased with a decrease in the current ratio from 1.42 in 2018 to 1.21 in 2022 and a debt-to-equity ratio that increased from 222% to 289%. The decrease in operational efficiency was also seen from the decrease in asset turnover from 0.5 to 0.3.

However, the COVID-19 pandemic, which began in early 2020, significantly impacted the construction sector. Large-scale social restrictions (PSBB), disruptions to the supply chain, and project delays decreased productivity, operational efficiency, and company profitability. Liquidity pressures also increased with decreased cash flow, while the company's capital structure became heavier due to increased debt.

PT. PP faced significant challenges in maintaining its financial health during the pandemic. On the other hand, the pandemic is also an opportunity for companies to re-evaluate their financial strategies, strengthen operational efficiency, and increase resilience to future economic disruptions, with the hope that this can increase profitability ratios, such as ROA and ROE, to pre-pandemic levels, restore asset turnover to optimal levels to maximize revenue contributions, reduce vulnerability to external economic risks through a healthier financial structure. These steps will help PT. PP recovered, became more resilient, and was ready to face future economic challenges. Therefore, this study is essential to understand how PT. PP manages its finances before and after the COVID-19 pandemic and identifies relevant strategies to support the company's recovery and sustainability. By using key indicators such as profitability, return on assets (ROA), and post-pandemic recovery, this study aims to provide in-depth insights into the financial resilience of PT. PP amidst these extraordinary challenges.

2. LITERATURE REVIEW

2.1 Definition of Profitability Ratio

Profitability The profitability ratio is the primary ratio in all financial reports because the company's main goal is the results of operations/profit. The profitability ratio is significant for all users of annual reports, especially equity investors; profit is the only determining factor in changes in the value of securities. The measurement and forecasting of profit are the most critical tasks for equity investors. According to Sartono (Hati & Ningrum, 2015), this ratio measures the effectiveness of overall management, which is indicated by the size of the level of profit obtained concerning sales or investment. According to Kasmir (in Sutomo, 2014:297), the profitability ratio is a ratio to assess the company's ability to seek profit. This ratio also provides a measure of the level of effectiveness of a company's management.

Profitability is a crucial ratio that effectively measures the financial return on assets or equity concerning profit (Henry, 2012). It serves as a definitive indicator of management effectiveness, demonstrating how well profits are generated relative to sales and investments (Irfan Fahmi, 2012). A higher profitability ratio unequivocally signifies a company's strong profit-making capability and its ability to generate substantial profits over a given period.

Profitability measures how effectively a company manages its sales revenue and investments (Hery, 2018). It specifically focuses on the relationship between the business's performance, as shown in the income statement, and the company's assets, as indicated in the statement of financial position. This ratio assesses the company's ability to generate profits, which depends on the efficiency and effectiveness of its operations and the utilization of available resources (Shabrina, 2019).

2.2 Return On Assets (ROA)

Return on total assets, commonly referred to as return on investment (ROI), is a ratio that shows the profit (earnings) of the cost of the asset used by the company. This ratio is also a measure of how effective investment management is. The smaller (lower) this ratio is, the worse it is, and vice versa (Kasmir, 2014). The definition of return on assets (ROA), according to Rivai et al. (2013), is the company's ability to use its assets for profit. This ratio measures the level of investment that the company can make by using all of its capital.

This ratio can be compared with the prevailing bank interest rate. Return on Assets is one of the profitability ratios of money that can describe the condition of a company. Kasmir (2016) said that ROA is a ratio that states the return on the amount of assets used in the company. ROA determines the effectiveness of the company's operations as a whole. The higher the ratio, the better because the company can use its assets effectively to generate profits.

2.3 Trade-off theory

Trade-off theory is a financial theory that explains how companies determine their capital structure by considering the advantages and disadvantages of using debt. This theory proposes that companies must find an optimal balance between debt and equity to maximize the company's value. Here are the definitions of trade-off theory according to experts:

2.3.1 Definition of Trade-Off Theory

1. Myers (1984)
   Trade-off theory describes that companies choose a capital structure by considering the trade-off between the tax benefits of debt and financial costs, such as bankruptcy costs and agency costs. This theory provides a framework for understanding why companies do not use debt optimally even though there are tax advantages.
2. Brigham and Houston (2014):
   Trade-off theory is a capital structure theory that assumes that companies balance the benefits of debt, such as tax deductions, with the costs associated with using debt, such as bankruptcy costs and increased financial risk.
3. Ross, Westerfield, and Jaffe (2016):
   This theory states that the optimal capital structure is achieved when the marginal benefits of debt equal the marginal costs of bankruptcy risk and increased leverage. This emphasizes that companies must consider the long-term effects of debt on their financial performance.

2.4 Post-Pandemic Recovery

Post-pandemic recovery is the economic, social, and operational recovery process after a pandemic, which includes efforts to address the short-term and long-term impacts of the disruptions caused by the pandemic. Here are some definitions and views on post-pandemic recovery according to experts:

Post-pandemic recovery is an effort to return the economy to a sustainable growth path after the pandemic. This recovery focuses on recovering the most affected sectors, such as transportation, tourism, and manufacturing. This recovery requires supportive fiscal, monetary, and structural reform policies (World Bank, 2021)

Post-pandemic recovery involves strategies to navigate the economic and social challenges after the pandemic, with a focus on building business resilience, accelerating digitalization, and creating more adaptive operational structures (McKinsey & Company, 2020

Post-pandemic recovery is a critical phase in which governments and businesses must focus on health, infrastructure, technology, and clean energy investments to ensure an inclusive and sustainable recovery (OECD, 2021).

3. RESEARCH METHOD

The author uses a qualitative descriptive analysis method. Qualitative methods are research approaches used to understand social phenomena or specific problems by exploring individuals' or groups' meanings, experiences, and views in a particular context. According to Denzin and Lincoln (2011), qualitative methods are research approaches that involve in-depth interpretation and analysis of non-numerical data to understand social phenomena in their natural context. Secondary data from various trusted sources, including books, journals, articles, and other sources, are the types of data used. Accounting information used by management in the form of financial reports is data used by the author in this study, namely secondary data which has been collected by the author, including:

a. General description of PT. PP (Persero) Tbk.
b. Financial condition of PT. PP (Persero) Tbk.
c. Strategies that PT. PP (Persero) Tbk can carry out to deal with the pandemic.
d. Strategy to Maintain Profitability with Trade-Off Theory of PT PP (Persero) Tbk Post-Pandemic Recovery

4. RESULT AND DISCUSSION

4.1 General description of PT. PP (Persero) Tbk.

PT. PP (Persero) Tbk, also known as **Pembangunan Perumahan**, is one of Indonesia's leading construction and engineering companies. Established in 1953, PT. PP (Persero) Tbk is a state-owned enterprise (SOE) primarily in the construction and infrastructure development sector. It is involved in a wide range of projects, including residential, commercial, industrial, and infrastructure construction, as well as the provision of various services related to the development of public and private sector projects.

1. Core Business Areas:
   - Construction: PT. PP (Persero) Tbk is involved in the construction of buildings, roads, bridges, and other civil engineering projects.
   - Infrastructure Development: The company has significant involvement in infrastructure projects such as toll roads, airports, ports, and power plants.
   - Property Development: The company also develops and manages residential, commercial, and mixed-use properties.

  - Engineering and Design Services: They provide a range of services in project management, design, and construction engineering.
2. Major Projects: PT. PP (Persero) Tbk has undertaken numerous large-scale projects, including high-rise buildings, factories, infrastructure for energy and utilities, and public facilities like hospitals, schools, and government buildings.
3. Market Position: PT. PP (Persero) Tbk is listed on the Indonesian Stock Exchange (IDX) under the ticker code "PTPP." The company is known for its expertise in executing large and complex construction projects and strong reputation for delivering high-quality infrastructure.
4. Financial Strength: PT. PP (Persero) Tbk has a solid financial position, with its revenues primarily coming from the construction and infrastructure sectors. The company's performance has generally been strong, reflecting the growing demand for infrastructure in Indonesia.
5. Sustainability and Innovation: PT. PP (Persero) Tbk is also focused on sustainability and innovation, with efforts toward using green building techniques, promoting environmental responsibility, and adopting new technologies in construction.

Overall, PT. PP (Persero) Tbk plays a vital role in Indonesia's economic development by supporting the country's growing infrastructure needs and contributing to urbanization and industrialization.

4.2 Financial condition of PT. PP (Persero) Tbk.

4.2.1 Profitability Analysis of PT PP (Persero) Tbk

The definition of profitability, often referred to as the profitability ratio, is a financial ratio used by investors to measure and evaluate the extent to which a company can generate profits against revenue. This ratio shows how well the company uses its assets to generate profits and value for shareholders, whereas most companies usually seek this higher ratio or value. Because this right means that the business is working well by generating revenue, profits, and cash flow, this ratio is most useful when compared to similar companies or previous periods.

Hery (2012) explains that profitability can be used to assess financial compensation for the use of assets or equity against profit. This is supported by the opinion of Irfan Fahmi (2012), where profitability can be used as a benchmark for the extent to which overall management effectively determines the size of a company's profits, either through the sales process or investment. The better the profitability ratio, the better it describes the company's high profit-making ability.

Many factors can affect a company's profitability level, not just a decrease in income in operating activities but the main reason for the decrease in income due to certain phenomena. The recent phenomenon that has rocked the world economy, namely the COVID-19 pandemic, has dramatically affected a company's profitability. We often find that many companies have gone bankrupt during the pandemic due to being unable to cover operational costs.

PT PP (Persero) Tbk is one of the state-owned companies affected by this pandemic. Based on existing data, the ROA level of PT PP (Persero) Tbk has decreased by 3.1% from 2018 to 2022, and the return on equity (ROE) has decreased by 9.54%, indicating a decrease in profitability. Liquidity constraints are increasing, as reflected by the decline in the current ratio from 1.42% in 2018 to 1.21 in 2022, along with an increase in the debt-to-equity ratio from 222% to 289%.

4.2.2 Financial Ratio Table of PT PP (Persero) Tbk

No	Name of Ratio	Formula & Circulation	State as	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022
Overall Performance Measures								
1	Price/Earning Ratio							
		Market price per share	Times	1,805	1,585	1,865	990	715
		Net Income per share		242	132	27	43	44
			.x	7.5	12.0	69.1	23.0	16.3
2	Return on Asset (ROA)	Earning After Interest and Tax	Percent	1,958,993,059,360	1,048,153,079,883	266,269,870,851	361,421,984,159	365,741,731,064
		Total Asset	x100	52,549,150,902,972	56,130,526,187,076	53,472,450,650,976	55,573,843,735,085	57,612,383,140,537
			%	3.73	1.87	0.50	0.65	0.63
3	Return on Invested Capital (ROIC)							
		Net Income + Interest (1-Tax Rate)	Percent	16,315,611,975,419	15,011,958,323,458	13,905,943,860,295	14,330,149,681,057	14,821,052,298,363
		Long Term Liabilities + Shareholder Equity		26,026,265,687,144	26,361,882,376,801	26,366,141,508,995	25,428,262,765,830	30,848,579,487,097
			x100	0.0753	0.0398	0.0101	0.0142	0.0119
			%	7.53	3.98	1.01	1.42	1.19
4	Return on Equity (ROE)		Percent					
		Net Income		1,958,993,059,360	1,048,153,079,883	266,269,870,851	361,421,984,159	365,741,731,064
		Shareholder Equity	x100	16,315,611,975,419	15,011,958,323,458	13,905,943,860,295	14,330,149,681,057	14,821,052,298,363
			%	12.01	6.98	1.91	2.52	2.47
18	Current Ratio (Rasio Lancar)		Ratio					
		Current Asset		37,534,483,162,953	38,948,536,283,067	33,924,938,550,674	33,731,768,331,332	32,391,722,826,546
		Current Liabilities		26,522,885,215,828	29,768,643,810,275	27,986,826,929,242	30,145,580,969,255	26,763,803,653,440
			xx	1.42	1.31	1.21	1.12	1.21
21	Debt to Equity Ratio		Percent					
		Total Debt (Total Liabilities)		36,233,538,927,553	41,118,567,863,618	40,447,024,577,942	41,243,694,054,028	42,791,330,842,174
		Total Equity		16,315,611,975,419	15,011,958,323,458	13,905,943,860,295	14,330,149,681,057	14,821,052,298,363
			.x 100%	222	274	291	288	289

source of ratio report PT PP (Persero) Tbk

This decline in profitability is very detrimental to PT PP (Persero) Tbk, especially the decline in ROA, which has several strategic interests that can affect managerial decisions and the sustainability of the company's business. ROA measures the ability of PT. PP (Persero) Tbk to generate net income from owned assets. In the construction industry, where assets (such as heavy equipment, buildings, and infrastructure investments) are extensive, ROA provides an overview of how efficiently the company utilizes these assets to generate profits. Although the construction industry can face fluctuations in demand and large projects that affect revenue in the short term, ROA shows how the company manages assets and generates profits from its operations.

For PT. PP (Persero) Tbk, which is often involved in large projects and has a significant asset portfolio, ROA provides insight into how well the company can manage its assets to achieve financial goals. A continuously declining ROA (seen in the decline during the COVID-19 pandemic) may indicate that the company needs to optimize asset and operational management to improve efficiency and profitability.

The COVID-19 pandemic, which disrupted operations and reduced demand for construction projects, has significantly impacted PT. PP's ROA has also shown a significant impact. In addition, low ROA can indicate that the company is having difficulty generating profits during periods of economic uncertainty. By continuously monitoring ROA and PT, PP can evaluate the long-term impact of the disruption and formulate appropriate recovery steps. For example, the company can look for ways to increase productivity or reduce unnecessary costs.

4.3 Strategies that can be carried out by PT. PP (Persero) Tbk to deal with the pandemic

Facing the COVID-19 pandemic, PT. PP (Persero) Tbk, an Indonesian state-owned construction company, is facing significant challenges that are affecting its profitability and operational efficiency. This pandemic has reduced demand, slowed construction projects, and increased economic uncertainty. Therefore, the right financial strategy is needed to increase the return on assets (ROA). Here are some strategic steps that PT. PP can take to increase ROA during the pandemic :

1. Optimizing Asset Use

   Rearranging Unproductive Assets During the Pandemic, PT. PP may have several assets that need to be used optimally (for example, unused construction equipment or unused property). The company can consider selling or leasing these assets to generate additional income while increasing the efficiency of using existing assets. In addition, using technology such as the Internet of Things (IoT) to monitor construction equipment can help minimize downtime and increase asset utilization. By reducing equipment idle time, PT. PP can maximize returns from its assets.

2. Increasing Operational Efficiency

   Reducing Operational Costs during the pandemic, PT. PP needs to be more careful when managing operational costs. This includes renegotiating with suppliers to get better prices or finding cheaper but quality material alternatives. These cost savings will increase profit margins and ROA. Applying digital technology and automation in project management can also help PT. PP reduce operational costs. For example, using project management software to monitor project progress and budgets in real time can help reduce wasted time and costs.

3. Better Project Management

   Completion of Projects with Higher Profit Margins: Focus on projects with higher profit margins or those that are more promising in the future. Identifying and completing more profitable projects can help increase ROA even in the midst of a pandemic. PT. PP can prioritize strategic projects that are more profitable and have good prospects and reduce projects with low profitability. Accelerating the project completion process by improving workflows and ensuring that projects run smoothly can help companies generate more profit from the assets used.

4. Wise Debt Management

   Debt Restructuring in the face of a pandemic, many companies, including PT. PP may face cash flow difficulties. Therefore, debt restructuring can be done to lower interest costs and provide more room for the company to survive. Reducing expensive short-term debt and replacing it with cheaper long-term debt can reduce the burden of financial costs and increase profit margins. PT. PP can consider using debt wisely to increase project funding without increasing the risk of bankruptcy. However, the use of leverage must be careful not to exacerbate financial risks amid economic uncertainty.

5. Better Working Capital Management

   Accelerating the collection of receivables or negotiating faster payments with clients can help improve liquidity and reduce cash flow pressures. Thus, PT. PP can maximize the use of current assets and increase returns on assets. In addition, Minimizing inventory waste and ensuring that existing inventory is used efficiently will help reduce operating costs and increase ROA. This also includes managing material purchases carefully to avoid getting caught in unnecessary excess stock during the pandemic.

4.4 Strategy to Maintain Profitability with Trade-Off Theory of PT PP (Persero) Tbk Post-Pandemic Recovery

Post-COVID-19 pandemic, PT PP (Persero) Tbk faces challenges in maintaining profitability and improving operational efficiency in the face of economic uncertainty and market changes. In this context, the Trade-Off Theory can be the basis for a financial strategy to balance the benefits of using debt with related costs and balance risk and return.

1. Application of Trade-Off Theory in Debt and Equity Management

   Trade-off theory suggests that companies should consider the advantages and disadvantages of using debt. By using debt, companies can increase return on equity (ROE) and financial risk, especially in unstable market conditions such as post-pandemic. PT PP needs to use debt wisely to optimize its capital structure by considering the following:

   a. Optimizing Debt to Equity Ratio

      PT PP can reassess its capital structure post-pandemic and determine the optimal debt-to-equity ratio. Using debt wisely can increase profitability if the cost of debt is lower than the rate of return generated by construction projects. However, if debt is too high, it can increase the risk of bankruptcy and reduce financial flexibility.

   b. Efficient Interest Expense Management

      PT PP should ensure that debt interest costs remain low by extending the debt term or restructuring it to make it more affordable. This will help reduce interest expenses and increase profitability, especially if the project's return is higher than the interest costs incurred.

2. Diversification of Revenue Sources and Risk Management

   PT PP can utilize the Trade-Off Theory to choose investments with lower risks but with stable profit potential. To maintain profitability in the long term, PT PP needs to focus on sectors that are more resilient to post-pandemic economic uncertainty, such as investing in sustainable infrastructure projects that offer lower risks and stable return potential. In digital Infrastructure Projects, investing in digital infrastructure (such as data centers, communication networks, and 5G technology) can be a profitable and lower-risk option, given the growing demand in this sector.

3. Better Risk Management to Minimize Losses

   PT PP should consider using the Trade-Off Theory to manage risks associated with construction projects, especially in the face of post-pandemic economic uncertainty. These include:

   a. Hedging against Interest Rate and Currency Risk:

      Suppose PT PP has debt in foreign currency or is affected by interest rate fluctuations. In that case, the company can use hedging instruments to mitigate these risks and avoid potential losses that could affect profitability.

   b. Managing Lower Risk Projects

      PT PP can choose projects with lower risks, such as government-funded infrastructure projects or projects with long-term and stable payments.

5. CONCLUSION AND RECOMMENDATIONS

ROA of PT PP (Persero) Tbk decreased by 3.1% from 2018 to 2022, and the return on equity (ROE) decreased by 9.54%, indicating a decline in profitability. Liquidity constraints are increasing, as reflected in the decline in the current ratio from 1.42% in 2018 to 1.21 in 2022, along with an increase in the debt-to-equity ratio from 222% to 289%. To stabilize or increase profitability, PT PP (Persero) Tbk can increase asset returns by optimizing asset use, increasing operational efficiency, improving project management, wise debt management, and working capital management. In addition, in facing the economic problems that will come after this pandemic, PT PP (Persero) Tbk can apply the Trade-Off Theory as the basis for financial strategy. PT PP (Persero) Tbk must use debt wisely to optimize its capital structure.

Moreover, PT PP (Persero) Tbk can utilize the Trade-Off Theory to choose investments with lower risk but with the potential for stable profits.

The discussion that focuses on profitability at the return on assets gives this scientific work many areas for improvement, so it is necessary to develop the discussion in further research.

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EDITOR'S BIOGRAPY

Dr. Anurag Agnihotri

Dr. Anurag Agnihotri is an accomplished academician and finance expert with extensive experience in teaching, research, consultancy, and curriculum development. He has been a Finance faculty member at the College of Vocational Studies (CVS), Delhi University, since July 18, 2007. Before this, he served as a Senior Lecturer at the Delhi College of Advanced Studies under GGSIP University from October 15, 2003, to July 17, 2007. Over his illustrious career, he has made significant contributions to academics, research, and professional consultancy, establishing himself as a leader in his field. Dr. Agnihotri has a robust academic portfolio, having authored **six books** published by prestigious national and international publishers. His scholarly work includes more than **67 research papers** indexed in reputed databases such as **Scopus, ABDC, and UGC Care listings**, showcasing his expertise in finance and related disciplines. Additionally, he has edited **five conference proceedings volumes**, further contributing to the dissemination of knowledge in his field. Dr. Agnihotri's policy work has been impactful, with two key policy documents—one on the effects of demonetization on Small and Medium Enterprises (SMEs) and another on Overseas Direct Investment—being **accepted and appreciated by the Ministry of Finance (Government of India)**. These contributions reflect his ability to bridge the gap between academia and policy-making, addressing critical financial issues at a national level. As a respected academic, Dr. Agnihotri has chaired sessions, delivered keynote addresses, and acted as a conference chair in numerous academic and professional gatherings. He is an active member of several prestigious professional bodies and serves on their committees, such as **Ph.D. CCI Capital and Commodity Market Committee, ASSOCHAM National Council of Internal Audit and Risk Management**. Dr. Agnihotri is a sought-after speaker and resource person for academic programs worldwide. He has conducted webinars and lectures at renowned institutions, including **Central Michigan University (USA)** and other reputed universities in **Turkey, Denmark**, **Nepal, France, Sri Lanka, Brazil, and Australia**. Within India, he has been invited to deliver sessions at leading colleges and universities, sharing his expertise on **research methods in finance, literature reviews, and curriculum design**.Dr. Agnihotri has played a significant role as a resource person in **Faculty Development Programs (FDPs)**, helping faculty across disciplines enhance their research capabilities. He is a resource faculty member for **INSET programs** under organizations like **KVS, CBSE, NCERT, and SERT** and holds the distinction of being an **Accredited Management Teacher**

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Dr. Anurag Agnihotri's career is marked by significant contributions to teaching, research, consultancy, and academic leadership. With his expertise, he has influenced policy-making, mentored future leaders, and enhanced the academic rigor of finance education. His extensive engagement in both national and international academic circles underscores his dedication to advancing the field of finance and education.

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